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HOWARD COUNTY, TEXAS

Records of wells, drillers' logs, water level measurements, water analyses, and map showing location of wells.

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WORKS PROGRESS ADMINISTRATION

GROUND WATER SURVEY

PROJECT 2091

J. Howard Samuell
Project Superintendent

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Analyses made, map prepared, data assembled, and report mimeographed by
WORKS PROGRESS ADMINISTRATION
PROJECT 6507-5112

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Sponsored by the State Board of Water Engineers with the Bureau of Industrial Chemistry of The University of Texas, and the U. S. Geological Survey cooperating.

* * * *

Austin, Texas
Apr. 10, 1937

HOWARD COUNTY, TEXAS

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Introduction

by
Samuel F. Turner
Associate Hydraulic Engineer
U. S. Geological Survey

The purpose of this survey was to obtain information concerning existing wells and springs and the quantity and quality of water they yield, and to put down test holes where additional information was needed.

This project was part of a statewide Works Progress Administration project known as a "Statewide Inventory of Water Wells," sponsored by the State Board of Water Engineers. The Division of Ground Water of the U. S. Geological Survey cooperated in the technical direction of the project and the Bureau of Industrial Chemistry of The University of Texas furnished laboratory space and equipment and supervised the chemical analyses.

The analyses were made by chemists employed on Works Progress Administration Project 6507-5112 at Austin, Texas, sponsored by the State Board of Water Engineers. This release was typed and assembled by typists and draftsmen employed on this project.

The field work in Howard County was started on December 20, 1935, and completed on October 1, 1936. T is project was Project 2091 of District 18 of the Works Progress Administration, Big Spring, Texas. J. Howard Samuell, a geologist, was project superintendent. Mr. Samuell deserves credit for his work and for the many extra hours he spent on the project. The Big Spring office of the Works Progress Administration made this work possible by their constant help and cooperation.

This release contains the well and spring records, water level measurements on numerous observation wells, well logs obtained by the project superintendent, logs of the test holes drilled by the W. P. A. labor, and the chemical analyses of water from privately owned wells and springs. Locations of all wells and springs listed are shown on the folded map in the back of the release. Both reported and measured depths of wells are given in the well records. The difference in the depths usually represents the amount of sand in the bottom of wells.

The test wells were drilled by W. P. A. labor using a soil auger, drop auger, churn drill, and a sand bucket. Samples were collected at one foot intervals by the well driller in charge of the party. The project superintendent studied these samples and compiled the logs.

Records of wells in Howard County, Texas.
(All wells are drilled unless otherwise noted in "Remarks" column.)

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
1	1½ miles south	12, SE.¼ SE.¼	T. 1 S. Blk. 33	City of Big Spring	--	1925	-- 239-m	72	0
2	do.	do.	do.	do.	Ramond Davidson	1926	280 176-m	6	0.9
3	do.	do.	do.	do.	do.	1926	280 243-m	6	1.4
4	do.	do.	do.	do.	do.	1926	283 214-m	12½	1.5
f/ 5	1 mile south	do.	do.	do.	do.	1926	250 --	8	--
6	2 miles south	18, NW.¼ SE.¼	T. 1 S. Blk. 32	do.	--	1926	133 131-m	8¼	1.3
f/ 7	do.	do.	do.	do.	Bob Helman	1926	135 --	10	--
f/ 8	do.	do.	do.	do.	do.	1926	130 --	6	--
9	do.	do.	do.	do.	do.	1926	140 121-m	6	1.0
f/ 9a	do.	do.	do.	do.	do.	1926	126 70-m	9	0.7
f/ 10	do.	do.	do.	do.	do.	1926	164 --	8	--
f/ 11	do.	do.	do.	do.	do.	1926	130 --	10	--
12	do.	18, SE.¼ SE.¼	do.	do.	do.	1926	130 --	8	--
13	do.	18, NW.¼ SE.¼	do.	do.	Ramond Davidson	1928	-- 88-m	8	1.7
14	do.	18, SE.¼ SE.¼	do.	do.	do.	1926	146 --	6	--
15	do.	18, NW.¼ SE.¼	do.	do.	do.	1928	138 136-m	8	1.0
16	do.	do.	do.	do.	do.	1928	160 153-m	8	1.2
17	do.	18, NE.¼ SE.¼	do.	do.	Bob Helman	1926	153 139-m	6½	0.7
f/ 17a	do.	do.	do.	do.	do.	1926	134 133-m	6½	1.5
18	do.	do.	do.	do.	do.	1926	203 153-m	8	0.8
18a	do.	do.	do.	do.	do.	1926	150 147-m	8	0.7
f/ 19	2¼ miles south	18, SE.¼ SE.¼	do.	do.	do.	1926	-- 168-m	6	0.3
19a	do.	do.	do.	do.	do.	1926	-- 172-m	6-5/8	1.7
f/ 20	do.	do.	do.	do.	do.	1928	-- 202-m	8	0.8

a/ Reported depth given first and measured depth indicated by "m".
b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.
c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

Records obtained by J. Howard Samuell, Project Superintendent.
(Chemical analyses of water from these wells are in the table of analyses.)

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
1	155.0	Jan. 17, 1936	None	N	2,582	Dug well boxed with timbers. Reported cost, $60,000. Reported capacity, 75 gallons a minute
2	138.0	do.	None	N	2,586	40 feet casing at top. same as drilled well.
3	158.4	do.	None	N	2,587	Do.
4	152.3	do.	T,E, 15	P	2,587	6 feet casing at top. Pumping well. See log.
5	--	do.	None	N	2,610	No casing. Hole caved and bridged. In Big Spring City Park.
6	71.4	Feb. 5, 1936	None	N	2,644	3 feet casing at top. See log.
7	--	do.	None	N	2,655	6 feet casing at top. Hole caved and bridged.
8	--	Feb. 22, 1936	None	N	2,644	No casing. Hole caved and bridged. See log.
9	64.4	do.	None	N	2,638	Do.
9a	64.8	do.	None	N	2,639	20 feet casing at top. See log.
10	--	Jan. 22, 1936	None	N	2,645	No casing. Hole caved and bridged. See log.
11	--	do.	None	N	2,668	10 feet casing at top. Hole caved and bridged.
12	--	do.	None	N	2,673	No casing. Hole caved and bridged. Reported capacity, 20 gallons a minute.
13	79.6	Jan. 28, 1936	None	N	2,669	3 feet casing at top.
14	--	Jan. 22, 1936	None	N	2,646	10 feet casing at top. Hole caved and bridged. See log.
15	79.0	Jan. 24, 1936	None	N	2,653	3 feet casing at top. See log.
16	99.3	Jan. 28, 1936	None	N	2,671	Do.
17	68.6	Jan. 23, 1936	None	N	2,650	8 feet casing at top. See log.
17a	67.0	do.	None	N	2,650	Do.
18	93.4	Jan. 22, 1936	None	N	2,666	3 feet casing at top.
18a	94.0	do.	None	N	2,665	Do.
19	92.5	Jan. 23, 1936	None	N	2,680	5 feet casing at top.
19a	110.1	Jan. 22, 1936	None	N	2,680	Do.
20	142.2	July 20, 1936	None	N	2,716	10 feet casing at top.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.
e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.
f/ No water sample collected for analysis.
g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
f/ 21	2 miles southeast	17,NW.¼ SW.¼	T. 1 S. Blk. 32	City of Big Spring	--	1928	260 104-m	7	1.7
21a	do.	do.	do.	do.	--	1928	-- 137-m	6½	1.1
f/ 22	1¾ miles southeast	17,SE.¼ NW.¼	do.	do.	Ramond Davidson	1926	180 --	6	--
f/ 22a	do.	do.	do.	do.	do.	1926	175 --	6	--
23	2 miles southeast	17,NW.¼ SW.¼	do.	do.	Bob Helman	1928	-- 181-m	8	0.9
f/ 23a	do.	17,SW.¼ NE.¼	do.	do.	do.	1928	190 --	8	--
f/ 24	2¼ miles southeast	17,NE.¼ SE.¼	do.	do.	do.	1928	260 --	8	--
24a	2⅛ miles southeast	17,SE.¼ SE.¼	do.	do.	do.	1928	260 --	8	--
f/ 25	do.	do.	do.	do.	R. O. Davidson	1928	260 244-m	8	1.6
f/ 26	do.	do.	do.	do.	do.	1926	260 --	8	--
27	do.	do.	do.	do.	do.	1928	-- 176-m	8	--
28	do.	do.	do.	do.	do.	1926	260 --	8	--
29	do.	17,SW.¼ SE.¼	do.	do.	do.	1928	260 248-m	8	0.8
30	do.	17,SE.¼ SE.¼	do.	do.	do.	1928	260 248-m	8	0.2
f/ 31	do.	17,SW.¼ SE.¼	do.	do.	do.	1928	260 259-m	8	0.5
32	do.	do.	do.	do.	do.	1928	260 259-m	8	0.7
33	do.	17,SE.¼ SW.¼	do.	do.	Frank Knaus	1928	260 263-m	8	0.7
34	do.	17,SE.¼ SE.¼	do.	do.	Ramond Davidson	1928	260 251-m	8	0.7
34a	do.	do.	do.	do.	Frank Knaus	1936	257 256-m	8	2.5
f/ 35	do.	do.	do.	do.	Ramond Davidson	1926	260 --	8	--
36	do.	do.	do.	do.	do.	1926	260 --	8	--
f/ 37	do.	do.	do.	do.	do.	1928	260 --	8	--
38	do.	do.	do.	do.	--	1928	260 254-m	8	0.6
f/ 39	do.	do.	do.	do.	Frank Knaus	1928	260 --	8	--
f/ 40	do.	do.	do.	do.	Lem Hilburn	1928	260 --	8	2.5
40a	2¾ miles southeast	do.	do.	do.	do.	1934	260 --	8	--
f/ 40b	3¼ miles southeast	21,center west line	do.	do.	Ramond Davidson	1929	172 --	8	0

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
21	99.5	Jan. 28, 1936	None	N	2,667	6 feet casing at top.
21a	100.4	do.	None	N	2,668	Do.
22	--	do.	None	N	2,678	20 feet casing at top. Hole caved and bridged.
22a	--	do.	None	N	2,679	15 feet casing at top. Hole caved and bridged.
23	127.9	Feb. 10, 1936	None	N	2,692	5 feet casing at top.
23a	--	do.	None	N	2,691	10 feet casing at top. Hole caved and bridged.
24	--	--	C,E, 7½	P	2,740	6 feet casing at top. Never fails.
24a	--	--	C,E, 7½	P	2,740	20 feet casing at top. Never fails.
25	199.1	Mar. 6, 1936	C,E, 10	P	2,754	5 feet casing at top. Never fails.
26	--	--	C,E,5	P	2,766	7 feet casing at top. Never fails.
27	--	--	None	N	2,770	8 feet casing at top. Well caved.
28	--	--	C,E,5	P	2,772	2 feet casing at top. Reported production, 30 gallons a minute.
29	218.5	Feb. 7, 1936	None	N	2,776	3 feet casing at top. Reported initial production, 75 gallons a minute. Temperature 58° F.
30	217.4	do.	None	N	2,776	Do.
31	221.2	Feb. 6, 1936	None	N	2,781	3 feet casing at top. Well cost $1.50 a foot to drill.
32	225.4	do.	None	N	2,787	3 feet casing at top. Reported production, 30 gallons a minute when last pumped in 1930.
33	230.6	do.	None	N	2,794	3 feet casing at top. Well cleaned out with sand pump in 1936. Reported production, 30 gal-
34	206.7	Feb. 5, 1936	None	N	2,763	3 feet casing at top. Reported lons a minute. production, 25 gallons a minute when last pumped
34a	215.3	May 5, 1936	C,E,5	P	2,761	150 feet casing set on top of water in 1932. sand. Reported production, 30 gallons a minute.
35	--	--	C,E,5	P	2,768	6 feet casing at top. Reported pro- See log. duction, 30 gallons a minute.
36	--	--	C,E,5	P	2,773	10 feet casing at top. Reported production, 30 gallons a minute.
37	--	Feb. 5, 1936	None	N	2,776	No casing. Hole caved and bridged near top.
38	215.2	Feb. 3, 1936	None	N	2,770	3 feet casing at top. Reported capacity, 25 gallons a minute.
39	--	--	C,E,5	P	2,774	9 feet casing at top. Reported production, 30 gallons a minute.
40	230.7	Feb. 3, 1936	None	N	2,776	20 feet casing at top. Located about 10 feet north of pumping well 40a. Unused.
40a	--	--	T,E, 20	P	2,776	167 feet casing set on top of water sand. Reported production, 125 gallons a minute. Pumps
40b	226.5	Jan. 16, 1937	None	N	2,789	No casing. Located dry in 8 hours. See log. ½ mile south of pumping well 40a. See log.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
41	2⅕ miles southeast	16, SW.¼ SW.¼	T. 1 S. Blk. 32	City of Big Spring	Ramond Davidson	1928	260 256-m	8	0.1
f/ 42	2⅗ miles southeast	do.	do.	do.	do.	1928	260 206-m	8	--
f/ 43	2½ miles southeast	do.	do.	do.	do.	1926	260 --	8	--
f/ 44	do.	do.	do.	do.	do.	1926	260 --	8	--
f/ 45	2¾ miles southeast	do.	do.	do.	do.	1926	260 --	8	--
46	2⅗ miles southeast	17, SE.¼ SE.¼	do.	do.	do.	1926	260 --	8	--
f/ 46a	do.	do.	do.	do.	Frank Knaus	1937	257 --	8	--
f/ 47	do.	16, SW.¼ SW.¼	do.	do.	Ramond Davidson	1926	260 --	8	--
48	do.	do.	do.	do.	do.	1926	260 --	8	--
49	do.	17, SE.¼ SE.¼	do.	do.	do.	1926	260 --	8	--
50	4¾ miles southeast	28, SE.¼ SE.¼	do.	do.	do.	1928	220 218-m	12	1.1
51	do.	do.	do.	do.	Cecil Murdock	1930	265 174-m	13	0.7
f/ 52	do.	do.	do.	do.	Clovis McDaniel	1932	172 --	8	--
f/ 53	do.	28, SW.¼ SE.¼	do.	do.	do.	1932	262 --	8	--
53a	do.	33, NE.¼ NE.¼	do.	do.	Lem Hilburn	1935	316 --	12½	--
54	do.	do.	do.	do.	Clovis McDaniel	1932	303 --	8	--
55	5 miles southeast	do.	do.	do.	Ramond Davidson	1929	303 203-m	12	1.0
56	4¾ miles southeast	do.	do.	do.	do.	1928	315 220-m	8	1.0
f/ 57	do.	33, NW.¼ NE.¼	do.	do.	Clovis McDaniel	1932	300 --	8	--
58	do.	do.	do.	do.	do.	1929	300 --	8	--
f/ 59	5 miles southeast	33, NE.¼ NE.¼	do.	do.	Frank Knaus	1929	280 --	10	--
59a	do.	do.	do.	do.	do.	1929	282 --	12½	--
f/ 59b	do.	do.	do.	do.	Lem Hilburn	1929	312 306-m	12	0.7
f/ 59c	do.	33, NW.¼ NE.¼	do.	do.	do.	1932	300 --	12½	--
f/ 59d	do.	do.	do.	do.	Clovis McDaniel	1929	295 --	8	--
60	do.	do.	do.	do.	do.	1929	275 233-m	12	1.1

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
41	214.6	Feb. 5, 1936	None	N	2,771	6 feet casing at top. Reported initial production, 75 gallons a minute.
42	--	--	None	N	2,773	No casing. Hole caved. Reported production, 35 gallons a minute in 1930.
43	--	--	C,E,5	P	2,774	10 feet casing at top. Reported production, 30 gallons a minute.
44	--	--	C,E,5	P	2,777	6 feet casing at top. Reported production, 30 gallons a minute.
45	--	--	C,E,5	P	2,778	10 feet casing at top. Reported production, 30 gallons a minute.
46	--	--	C,E,5	P	2,767	18 feet casing at top. Reported production, 25 gallons a minute.
46a	--	Jan., 1937	C,E, 10	P	2,767	10 feet casing at top. Pumped daily. Reported production, 25 gallons a minute.
47	--	--	C,E,5	P	2,768	5 feet casing at top. Reported never fails.
48	--	--	C,E,5	P	2,770	12 feet casing at top. Reported production, 30 gallons a minute.
49	--	--	C,E,5	P	2,767	14 feet casing at top. Reported never fails.
50	109.2	Feb. 10, 1936	None	N	2,617	12 feet casing at top. Reported capacity, 75 gallons a minute. See log.
51	126.1	do.	None	N	2,626	3 feet casing at top. Reported capacity, 250 gallons a minute. See log.
52	--	--	T,E, 10	P	2,627	10 feet casing at top. Reported production, 125 gallons a minute. Never fails. See log.
53	--	--	T,E, 15	P	2,637	4 feet casing at top. Reported production, 175 gallons a minute. Never fails. See log.
53a	--	--	T,E, 20	P	2,625	Submersible turbine. Reported production, 200 gallons a minute. See log.
54	--	--	C,E,5	P	2,624	10 feet casing at top. Reported production, 30 gallons a minute. Never fails.
55	143.5	Feb. 12, 1936	None	N	2,628	5 feet casing at top. Reported initial production, 250 gallons a minute. See log.
56	135.2	Feb. 3, 1936	T,E, 15	P	2,628	5 feet casing at top. Reported production, 200 gallons a minute. Never fails.
57	--	--	C,E,5	P	2,631	4 feet casing at top. Reported production, 30 gallons a minute. Never fails.
58	--	--	C,E,5	P	2,639	14 feet casing at top. Reported production, 30 gallons a minute. Never fails.
59	--	Apr. 3, 1936	None	N	2,632	No casing. Crooked hole with wooden float lodged near bottom. 10 feet from pumping well
59a	--	--	T,E, 30	P	2,633	20 feet casing at top. 80 feet 10 inch perforated liner set on bottom through water sand. Reported production, 250 gallons a minute. | 59a.
59b	142.0	Apr. 4, 1936	None	N	2,632	10 feet casing at top. Reported initial production, 175 gallons a minute. Crooked hole; sands
59c	--	--	T,E, 40	P	2,637	7 feet casing at top. Reported production, 250 gallons a minute. Never fails. | up. See log.
59d	--	Apr. 4, 1936	None	N	2,637	No casing. Hole caved and bridged. Located 50 feet north of pumping well 59c. | See log.
60	133.1	Feb. 12, 1936	None	N	2,643	6 feet casing at top. Reported initial production, 175 gallons a minute. See log.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
61	5 miles southeast	33, SW.¼ NE.¼	T. 1 S. Blk. 32	City of Big Spring	Clovis McDaniel	1930	244 224-m	12	1.0
62	4⅝ miles southeast	33, NW.¼ NE.¼	do.	do.	--	1930	209 183-m	12	1.2
63	do.	33, NE.¼ NE.¼	do.	do.	Clovis McDaniel	1929	267 --	8	--
64	5 miles southeast	do.	do.	do.	Ramond Davidson	1928	287 250-m	12	1.7
65	do.	do.	do.	do.	do.	1929	-- 252-m	8	1.3
f/ 66	do.	do.	do.	do.	do.	1929	200 --	8¼	--
f/ 67	do.	do.	do.	do.	do.	1929	198 --	8¼	2.2
68	4⅜ miles southeast	28, SE.¼ SE.¼	do.	do.	--	1930	115 102-m	12	1.5
69	do.	27, SW.¼ SW.¼	do.	do.	--	1930	187 129-m	12	1.3
70	do.	do.	do.	do.	--	1930	115 84-m	10	1.2
71	5 miles southeast	33, SW.¼ NE.¼	do.	do.	Clovis McDaniel	1928	152 74-m	10	0
f/ 72	5¼ miles southeast	33, NE.¼ SE.¼	do.	do.	do.	1929	190 --	8	--
f/ 73	do.	34, NE.¼ NW.¼	do.	do.	Frank Knaus	1930	90 --	8	--
f/ 73a	6⅜ miles southeast	35, center west line	do.	Hardy Morgan	--	--	Spring	--	--
81	1¼ miles south	7, SW.¼ SW.¼	do.	T. & P. R. R. Co.	T. & P. R. R. Co.	1900	-- 169-m	6-5/8	0.8
f/ 81a	2 miles south	7, SW.¼ NW.¼	do.	do.	--	--	Spring	--	--
f/ 82	1¼ miles south	7, SW.¼ SW.¼	do.	do.	--	1901	170 --	6	--
f/ 83	do.	do.	do.	do.	T. & P. R. R. Co.	1901	-- 155-m	6-5/8	1.5
f/ 84	do.	do.	do.	do.	do.	1900	-- 212-m	8	1.2
f/ 85	1⅝ miles south	do.	do.	do.	do.	1906	-- 190-m	6	1.5
86	do.	do.	do.	do.	do.	1900	-- 193-m	10	0.7
f/ 87	1¼ miles south	do.	do.	do.	--	1901	175 --	6	--
f/ 88	do.	do.	do.	do.	--	1901	173 --	6	--
501	4⅜ miles southwest	21, NE.¼ NE.¼	T. 1 S. Blk. 33	Mrs. G. Connally, et al.	--	1928	80 80-m	6	0.7
502	5½ miles south	27, SW.¼ SW.¼	do.	Wilson & Co. heirs	Jack McKinnon	1936	50 51-m	42	1.0

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
61	131.4	Feb. 13, 1936	None	N	2,644	3 feet casing at top. Reported initial production, 175 gallons a minute. See log.
62	144.1	Feb. 19, 1936	None	N	2,655	5 feet casing at top. Reported initial production, 125 gallons a minute. See log.
63	--	--	C,E,5	P	2,621	20 feet casing at top. Reported production, 30 gallons a minute. Never fails.
64	129.8	Feb. 11, 1936	None	N	2,622	5 feet casing at top. Reported initial production, 250 gallons a minute. See log.
65	130.7	Feb. 12, 1936	None	N	2,626	16 feet casing at top. Reported initial production, 250 gallons a minute.
66	--	do.	None	N	2,644	15 feet casing at top. Hole caved and bridged. Located east of creek on hilltop.
67	142.2	do.	None	N	2,642	4 feet casing at top. Reported initial production, 25 gallons a minute. See log.
68	71.2	Feb. 17, 1936	None	N	2,608	6 feet casing at top. Reported initial production, 25 gallons a minute. See log.
69	62.7	do.	None	N	2,602	51 feet casing at top. Reported initial production, 25 gallons a minute. See log.
70	57.8	do.	None	N	2,598	60 feet casing at top. Reported capacity, 25 gallons a minute. See log.
71	57.4	Feb. 12, 1936	None	N	2,660	3 feet casing at top. Reported initial production, 25 gallons a minute. See log.
72	--	Sept.22, 1936	None	N	2,640	No casing. Hole caved and bridged. Top of hole covered by rock. Unused well. See log.
73	--	do.	None	N	2,588	No casing. Weak supply. Estimated capacity, 4 barrels a day. See log.
73a	Seep	Feb. 15, 1936	None	S	--	Weak seep. Estimated flow, 1 barrel a day. Formerly strong spring until City of Big Spring drilled wells in Section 33, 1 mile west of sink
81	159.3	Jan. 20, 1936	None	N	2,582	60 feet casing at top. Reported capacity, 30 gallons a minute.
81a	Seep	Dec. 20, 1935	None	N	2,510	Weak seep. Before 1925 spring flowed 100,000 gallons daily. City of Big Spring and T.& P. R.R. used water, After wells were drilled and pumped in City Park 200 yards west, spring be-
82	--	Jan. 20, 1936	C,E, 10	Ind	2,585	20 feet casing at top. Pumped daily. Reported production, 30 gallons a minute. came dormant.
83	146.8	do.	None	N	2,584	20 feet casing at top. Reported capacity, 30 gallons a minute.
84	179.3	Jan. 21, 1936	None	N	2,632	No casing. Reported capacity, 30 gallons a minute.
85	181.0	do.	None	N	2,632	12 feet casing at top. Reported capacity, 25 gallons a minute.
86	180.1	do.	None	N	2,632	4 feet casing at top. Reported capacity, 30 gallons a minute.
87	--	Jan. 20, 1936	C,E, 10	Ind	2,586	20 feet casing at top. Pumped daily. Reported capacity, 30 gallons a minute.
88	--	do.	C,E, 10	Ind	2,586	Do.
501	73.9	Feb. 2, 1936	C,W	D,S	2,535	Salt and gypsum taste. Reported capacity, 5 gallons a minute. Drawdown, 4.4 feet after 3 hours
502	46.7	Mar. 3, 1936	C,W	D,S	2,565	Dug well. 50 feet 5-3/16 steel casing. pumping. Water turbid with salty taste. Capacity, 5 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
503	6¼ miles south	34, NW.¼ NW.¼	T. 1 S. Blk. 33	Elbow School	--	1918	43 50-m	40	1.7
504	6½ miles southwest	28, SE.¼ SE.¼	do.	Mrs. G. Connally, et al.	Abe Nolan	--	35 37-m	36	0
506	6¾ miles south	33, NW.¼ SE.¼	do.	J. C. McKinnon heirs	Cecil Murdock	1934	70 69-m	6	0
507	6⅝ miles southwest	28, SE.¼ SW.¼	do.	Mrs. G. Connally, et al.	--	1918	-- 57-m	6	0
508	7 miles southwest	32, NE.¼ NE.¼	do.	I. B. Cauble	--	1900	-- 34-m	46	1.7
f/509	3 miles south	14, SE.¼ NE.¼	do.	E. Springman	--	1925	94 86-m	36	1.8
510	4½ miles southwest	22, NE.¼ NW.¼	do.	Wilcox & Co.	--	1912	60 71-m	36	0.7
511	7 miles southwest	29, SE.¼ SW.¼	do.	J. C. McKinnon heirs	--	1929	60 53-m	6-5/8	1.6
512	7¾ miles southwest	31, NW.¼ NE.¼	do.	I. B. Cauble	--	--	75 --	6	0
513	do.	do.	do.	do.	--	--	45 51-m	6	0.9
514	8½ miles southwest	36, NE.¼ NE.¼	T. 1 S. Blk. 34	J. M. Coleman	--	1916	80 51-m	6¼	0.2
f/514a	9½ miles southwest	26, SW.¼ SW.¼	do.	Mable Quinn	Marland Oil Co.	1928	3,885 --	15½	--
515	8½ miles southwest	36, NE.¼ SE.¼	do.	J. F. Ramsey	--	--	-- 34-m	6¼	3.1
516	9¼ miles southwest	43, SE.¼ NE.¼	T. 1 S. Blk. 33	R. C. Reed	R. C. Reed	1925	40 42-m	36	0.6
517	11½ miles south	7, SW.¼ NW.¼	T. 2 S. Blk. 33	L. S. McDowell & son	--	1915	50 59-m	6	1.7
518	8 miles southwest	41, NE.¼ NW.¼	T. 1 S. Blk. 33	L. A. Ford	A. B. Johnson	1905	52 45-m	10	1.6
519	6 miles south	35, SW.¼ SE.¼	do.	J. C. McKinnon heirs	Cecil Murdock	1930	89 86-m	6	0.9
520	6½ miles south	38, NE.¼ NE.¼	do.	do.	--	1925	40 35-m	8	0.6
521	6¾ miles south	58, NW.¼ NW.¼	do.	Mrs. F. L. Bell	--	1929	-- 68-m	8	3.6
522	7 miles southwest	33, NW.¼ NW.¼	do.	J. C. McKinnon heirs	--	--	-- 39-m	8	0
523	7 miles south	33, NE.¼ SW.¼	do.	J. D. McKinnon	--	1927	-- 39-m	6	1.2
524	7¾ miles southwest	41, NW.¼ NE.¼	do.	J. B. Pickle	--	1906	40 42-m	6	0.9
525	10 miles southwest	37, SW.¼ SW.¼	T. 1 S. Blk. 34	T. W. Ashley	Clovis McDaniel	1951	-- 86-m	42	0.3
526	10½ miles southwest	47, NE.¼ NE.¼	do.	I. B. Cauble	do.	1933	94 107-m	8	0.7

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine: Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
503	47.3	Mar. 3, 1936	C,W	P	2,635	Dug well. Reported salt and gypsum taste. Drawdown, 3 feet after 4 hours pumping 2-5 gallons a minute.
504	35.0	do.	C,W	S	2,633	Dug well. Weak supply. Capacity, 2 gallons a minute. Salty taste. Unfit for drinking.
506	46.4	do.	C,W	D,S	2,641	8 feet casing at top. Flat taste. Good well. Never fails. Reported capacity, 10 gallons a minute.
507	30.1	do.	C,W	D,S	2,600	Drawdown, 4 feet after 10 hours pumping 10 gallons a minute.
508	24.9	do.	C,W	D,S	2,605	Dug well. 30 feet galvanized iron casing at top. Supplies 235 head of cattle and 3 families. Reported capacity, 10 gallons a minute.
509	62.1	Mar. 4, 1936	C,W	D	2,609	Dug 22 feet; drilled 4¾ inch hole balance depth. Weak supply. 80 feet casing at top.
510	67.7	do.	C,W	D,S	2,540	Dug well. No casing. Reported capacity, 5-10 gallons a minute. 3 inch galvanized tubing.
511	32.3	do.	C,W	D,S	2,515	15 feet casing at top. Reported capacity, 5-10 gallons a minute. Flat taste.
512	63 g/	do.	C,W	S	2,505	20 feet casing at top. Drawdown, 3 feet after pumping 5-10 gallons a minute for 4 hours.
513	24.5	do.	C,W	D,S	2,500	45 feet casing at top. Reported capacity, 5-10 gallons a minute. Reported good water.
514	25.2	do.	C,W	D,S	2,492	20 feet casing at top. Water tastes flat. Strong supply. Reported capacity, 10 gallons a minute.
514a	--	--	None	N	2,502	Oil test. See log.
515	28.0	Mar. 4, 1936	C,W	S	2,480	20 feet casing at top. Weak supply. Reported capacity, 2 gallons a minute.
516	34.2	do.	C,W	D,S	2,530	Dug well. 8 feet brick casing at top. High wind causes drawdown of 8 feet in 15 hours.
517	51.8	do.	C,W	S	2,510	20 feet casing at top. Well located in Glasscock County, Texas.
518	33.3	do.	C,W	D	2,530	18 feet square wood boxing at top. Weak supply. Reported water unfit for drinking.
519	60.8	Mar. 5, 1936	C,W	D,S	2,600	8 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
520	24.4	do.	C,W	D,S	2,590	5 feet casing at top. Strong supply. Near creek.
521	50.1	do.	C,W	S	2,580	20 feet casing at top. Strong supply. On creek bank. Never fails.
522	32.1	do.	C,W	D,S	2,519	10 feet casing at top. Reported capacity, 5 gallons a minute. Water tastes salty.
523	33.5	do.	C,W	D,S	2,520	10 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
524	31.1	do.	C,W	D,S	2,519	30 feet casing at top. Reported capacity, 5 gallons a minute.
525	64.4	do.	C,W	N	2,540	Dug well. Cribbed at top with concrete; no casing below. Well temporarily abandoned.
526	78.7	do.	C,W	D,S	2,550	20 feet casing at top. Reported capacity, 10 gallons a minute.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.
e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.
f/ No water sample collected for analysis.
g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
527	11 miles southwest	47, SW.¼ SE.¼	T. 1 S. Blk. 34	I. B. Caublc	Clovis McDaniel	1933	-- 30-m	8	0.7
528	10 miles southwest	38, center of section	do.	Mabel Quinn	do.	1934	-- 79-m	6	0.5
529	12⅝ miles southwest	45, NW.¼ NW.¼	do.	Chas. Eberley	--	1927	60 59-m	6	0.7
530	do.	45, SW.¼ NW.¼	do.	do.	--	--	-- 58-m	6	0.3
531	do.	45, NW.¼ SW.¼	do.	W. F. Fahrenkamp	--	--	55 56-m	5-3/16	0.6
532	do.	45, NE.¼ SW.¼	do.	do.	--	--	-- 58-m	5	0.8
533	13⅜ miles southwest	45, NW.¼ NE.¼	do.	C. E. Talbot	--	1927	50 57-m	5	2.6
534	14 miles southwest	43, NW.¼ SE.¼	do.	Cleveland Newman	--	--	-- 42-m	6	1.1
535	14¼ miles southwest	43, NW.¼ SW.¼	do.	W. G. Bailey	--	1929	-- 60-m	5	0.5
536	14½ miles southwest	48, NE.¼ NW.¼	T. 1 S. Blk. 35	T. W. Haynie	--	--	-- 41-m	36	1.0
537	14 miles southwest	37, SE.¼ SE.¼	do.	Mildred Jones	--	--	-- 48-m	6	0.3
538	13 miles southwest	41, SW.¼ SW.¼	T. 1 S. Blk. 34	C. Newman	Leslie Stirtling	1924	-- 47-m	8	0.9
539	do.	42, NE.¼ NE.¼	do.	Lomax School, Dist. 16	do.	1928	60 58-m	6	0.7
540	12¾ miles southwest	31, SW.¼ SE.¼	do.	Mrs. J. A. McDaniel	Clovis McDaniel	1935	59 56-m	8	0.9
541	12⅝ miles southwest	41, NW.¼ NW.¼	do.	C. Kornegay Gin	C. Broters	1951	60 59-m	6	0.9
542	13¼ miles southwest	42, SE.¼ NE.¼	do.	Sam Turner	--	--	60 60-m	6	0.1
543	11¾ miles southwest	32, NE.¼ NE.¼	do.	T. J. McIlvain	Frank Knaus	1927	58 59-m	8	1.6
544	12 miles southwest	32, NW.¼ NE.¼	do.	do.	Clovis McDaniel	1925	59 --	8	1.6
545	11⅞ miles southwest	29, SW.¼ SE.¼	do.	J. H. Homan	Frank Knaus	1928	58 53-m	6-5/8	0.9
546	11½ miles southwest	29, SW.¼ NE.¼	do.	do.	Ramond Davidson	1936	63 63-m	8	2.0
547	do.	20, SW.¼ SE.¼	do.	Mabel Quinn	Clovis McDaniel	1934	63 64-m	8	0.3
548	10 miles southwest	22, SW.¼ SW.¼	do.	do.	--	1900	30 16-m	8	0.6
f/548a	do.	21, NE.¼ SE.¼	do.	do.	Big Spring Production Co.	1928	3,640 --	10	--
549	8¾ miles southwest	23, NE.¼ SW.¼	do.	do.	Clovis McDaniel	1934	50 38-m	10	0
550	8½ miles southwest	23, SE.¼ SE.¼	do.	do.	do.	1934	34 34-m	6-5/8	2.1
551	11 miles southwest	28, SE.¼ SW.¼	do.	do.	--	1900	-- 14-m	6-5/8	2.7
552	13⅜ miles southwest	36, NW.¼ NE.¼	T. 1 S. Blk. 35	A. J. Stallings	--	1927	-- 64-m	6	0.7

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
527	56.3	Mar. 6, 1936	C,W	S	2,515	20 feet casing at top. Driller reported capacity, 85 gallons a minute on test.
528	52.8	do.	C,W	S	2,550	40 feet casing at top. Reported good water. Capacity, 5 gallons a minute.
529	54.3	do.	C,W	D,S	2,560	5 feet casing at top. Irrigates 1 acre garden. Capacity, 5 gallons a minute.
530	48.6	do.	C,W	D,S	2,572	20 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
531	43.2	do.	C,W	D,S	2,571	20 feet casing at top. Water reported hard. Capacity, 5 gallons a minute.
532	49.6	do.	C,W	D,S	2,575	10 feet casing at top. Water reported hard and salty. Capacity, 5 gallons a minute.
533	37.6	Mar. 9, 1936	C,W	D,S	2,515	18 feet casing at top. Supplies 20 head of cattle. Reported strong supply.
534	29.5	do.	C,W	D,S	2,530	8 feet casing at top. Water reported hard. Reported capacity, 5 gallons a minute.
535	33.1	do.	C,W	D,S	2,540	20 feet casing at top. Supplies 13 head of cattle. Reported strong supply.
536	40.3	do.	C,W	D,S	2,550	Dug well. No casing. Fails after pumping 4 hours.
537	32.2	do.	C,W	D,S	2,556	No casing. Reported unfit for drinking. Weak supply. Reported capacity, 5 gallons a minute.
538	38.1	do.	C,W	D,S	2,502	4 feet casing at top. Strong well. Never fails. Water hard.
539	41.8	do.	C,W	P	2,504	12 feet casing at top. Supplies school with 45 students. Reported capacity, 10 gallons a minute.
540	41.1	do.	C,W	D	2,508	5 feet casing at top. Reported capacity, 10 gallons a minute.
541	43.5	do.	C,W	D,I	2,517	No casing. Never fails. Reported capacity, 5-10 gallons a minute.
542	43.3	do.	C,W	D,S	2,534	No casing. Supplies 30 head of stock. Reported never fails.
543	49.5	Mar. 10, 1936	C,W	D,S	2,470	20 feet casing at top. Drawdown, 4 feet after pumping 5 hours.
544	42.3	do.	C,W	D,S	2,475	5 feet casing at top. Reported capacity, 10 gallons a minute.
545	43.4	do.	C,W	D,S	2,578	15 feet casing at top. Supplies 37 head of stock. Never fails.
546	52.5	do.	C,W	D,S	2,480	10 feet casing at top. Supplies 40 head of stock. Never fails.
547	55.3	do.	C,W	S	2,578	3 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
548	10.5	do.	C,W	S	2,437	8 feet casing at top. Drilled in creek bed. Estimated capacity, 10 gallons a minute. This well
548a	--	--	None	N	2,480	Oil and offset well supply 5,000 head of sheep. test. See log.
549	35.1	Mar. 10, 1936	C,W	S	2,470	3 feet casing at top. Water unfit for drinking. Weak supply.
550	32.5	do.	C,W	S	2,470	10 feet casing at top. Well on Elbow Creek bank. Never fails.
551	11.7	do.	C,W	S	2,440	10 feet casing at top. Located in creek bed. Never fails. Reported salty taste.
552	55.6	Mar. 11, 1936	C,W	D,S	2,497	3 feet casing at top. Supplies J. Y. Robb place, ¾ mile northeast.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
f/552a	13¼ miles southwest	24, center of section	T. 1 S. Blk. 35	-- Bryce	Marland Oil Co.	1923	3,290 --	12½	--
553	13½ miles southwest	36, SE.¼ NE.¼	do.	A. J. Stallings	Lem Hilburn	1924	-- 62-m	6	0.2
554	13¼ miles southwest	31, SW.¼ NW.¼	T. 1 S. Blk. 34	L. E. Lomax Est.	--	1926	-- 60-m	10	0.8
555	13¾ miles southwest	36, SE.¼ SE.¼	T. 1 S. Blk. 35	do.	--	--	-- 71-m	10½	0.8
556	14½ miles southwest	35, SE.¼ SE.¼	do.	M. H. Connell	--	1926	-- 63-m	8	0.3
f/557	15 miles southwest	38, SW.¼ NE.¼	do.	Frank Stone	--	--	-- 69-m	6	1.2
558	15¼ miles southwest	35, SW.¼ SW.¼	do.	Butler Barnette	--	--	-- 67-m	10	0.8
559	13¾ miles southwest	37, NE.¼ NE.¼	do.	J. C. Turner	Murdock Bros.	1925	60 60-m	8	1.0
560	do.	37, SE.¼ NE.¼	do.	H. O. Phillips	Clovis McDaniel	1925	-- 57-m	8	1.1
561	13½ miles southwest	42, NW.¼ NW.¼	T. 1 S. Blk. 34	Sam Turner	--	--	-- 57-m	10	0.6
562	13¼ miles southwest	31, SE.¼ SW.¼	do.	L. E. Lomax Est.	--	--	-- 58-m	8	0.8
563	13 miles southwest	31, SW.¼ SE.¼	do.	do.	--	--	-- 58-m	10	0.3
564	12¾ miles southwest	41, NW.¼ NW.¼	do.	C. W. Newman	--	--	-- 62-m	6	1.1
565	6½ miles southwest	28, SW.¼ SW.¼	T. 1 S. Blk. 33	Mrs. G. Connally, et al.	--	--	30 29-m	48	3.2
566	6¾ miles southwest	29, SE.¼ SE.¼	do.	Mrs. A. P. Bronaugh	--	1896	44 31-m	46	1.2
567	do.	29, SE.¼ NW.¼	do.	Mrs. W. J. Bronaugh	Murdock Bros.	1931	-- 43-m	6	0
568	7 miles southwest	29, NW.¼ NW.¼	do.	Roy Wilcox	--	--	-- 40-m	36	1.5
569	do.	19, SW.¼ SE.¼	do.	J. B. Harding	--	--	-- 67-m	5	0.5
f/569a	6¾ miles southwest	do.	do.	do.	Marland Oil Co.	1927	3,188 --	15	--
570	7¼ miles southwest	30, NW.¼ NE.¼	do.	do.	--	--	-- 36-m	5	3.3
571	8 miles southwest	24, SE.¼ SW.¼	T. 1 S. Blk. 34	J. W. Thorp	J. W. Thorp	1930	70 --	6	0.8
572	7½ miles southwest	29, NE.¼ SE.¼	do.	do.	Murdock Bros.	1930	100 98-m	5	1.3
573	7¾ miles southwest	24, NW.¼ NW.¼	do.	J. O. Rosser	J. W. Thorp	1930	100 99-m	8	0.3
574	6½ miles southwest	29, SE.¼ NE.¼	do.	J. C. McKinnon	Murdock Bros.	--	42 --	8	0.5
575	5½ miles southwest	17, SE.¼ SE.¼	do.	J. F. Frazier	--	1918	-- 165-m	6-5/8	0.5
576	4¾ miles southwest	8, NE.¼ SE.¼	T. 1 S. Blk. 33	A. W. Yates	--	1923	129 66-m	10	1.3
577	4½ miles southwest	9, NW.¼ SW.¼	do.	C. B. Whatley	Murdock Bros.	1923	-- 118-m	10	0.2

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
552a	--	--	None	N	2,561	Oil test. See log.
553	44.7	Mar. 11, 1936	C,W	D,S,I	2,490	No casing. Supplies 15 head of stock. Water unfit for irrigating garden.
554	45.5	do.	C,W	D,S	2,490	3 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
555	54.1	do.	C,W	D,S	2,505	3 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute.
556	50.1	do.	C,W	D,S	2,520	No casing. Water turbid. Reported capacity, 5 gallons a minute.
557	56.2	do.	C	N	2,537	3 feet casing at top.
558	43.2	do.	C,W	D,S	2,536	3 feet galvanized casing at top. Located on Howard-Martin County line.
559	41.1	do.	C,W	S	2,495	3 feet casing at top. Water unfit for drinking. Reported capacity, 5 gallons a minute.
560	38.9	do.	C,W	S	2,495	4 feet casing at top. Water unfit for drinking.
561	38.8	do.	C,W	D,S	2,500	20 feet casing at top. Reported capacity, 10 gallons a minute.
562	37.2	do.	C,W	D,S	2,507	4 feet casing at top. Reported strong supply. Never fails.
563	43.6	do.	C,W	D,S	2,502	3 feet casing at top. Drawdown, 3 feet after pumping 10 hours. Never fails.
564	46.0	do.	C,W	D,S	2,507	3 feet casing at top. Reported capacity, 5 gallons a minute.
565	27.1	Mar. 12, 1936	B,H	D,S	2,520	Dug well. Top boxed with wood. Located near Elbow Creek.
566	21.7	do.	C,W	D,S	2,502	Dug and drilled well. Reported capacity, 5-10 gallons a minute. Located on creek bank.
567	21.8	do.	C,W	D,S	2,510	5 feet casing at top. Strong supply. Located near Elbow Creek.
568	19.5	do.	C,W	D,S	2,513	Well cribbed with concrete at top. Water reported unfit for drinking.
569	39.2	do.	C,W	D,S	2,527	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
569a	--	--	--	N	2,514	Producing oil well. See log.
570	18.6	Mar. 12, 1936	C,W	D,S	2,510	20 feet casing at top. Well located on Elbow Creek bank.
571	55.5	do.	C,W	S	2,537	15 feet casing at top. Water reported unfit for drinking.
572	67.1	do.	C,W	D	2,577	10 feet casing at top. Reported capacity, 5 gallons a minute.
573	95.0	do.	C,W	S	2,607	12 feet casing at top. Water reported unfit for drinking.
574	20.8	do.	C,W	D,S	2,537	3 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
575	162.0	do.	C,W	S	2,617	160 feet steel casing, top to bottom. Bottom joint perforated. Water unfit for drinking.
576	54.3	Mar. 16, 1936	C,W	D,S,I	2,497	5 feet casing at top. Reported capacity, 5 gallons a minute.
577	102.5	do.	C,W	D,S,I	2,588	20 feet casing at top. Reported capacity, 10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
578	4⅜ miles southwest	8,SE.¼ NE.¼	T. 1 S. Blk. 33	R. I. Finley	Murdock Bros.	1923	-- 124-m	6	2.6
579	5½ miles southwest	8,NE.¼ SW.¼	do.	H. E. Dunagan	--	--	-- 135-m	6	0.3
580	do.	8,SE.¼ NW.¼	do.	A. D. Franklin	Murdock Bros.	1923	-- 135-m	5	0.8
581	5⅜ miles southwest	7,NE.¼ SE.¼	do.	T. H. Gashins	do.	1925	140 131-m	6-5/8	0.5
582	6¼ miles southwest	18,SW.¼ NE.¼	do.	H. Cowden	do.	1935	153 134-m	6-5/8	0.7
583	6⅜ miles southwest	18,NW.¼ SW.¼	do.	E. E. Brindley	do.	1933	-- 130-m	6	0.8
584	6⅜ miles south	33,NE.¼ SE.¼	do.	J. C. McKinnon heirs	--	1923	45 41-m	6	0.3
585	7 miles south	40,NE.¼ NE.¼	do.	A. M. Fisher	--	1900	80 73-m	6	1.7
586	do.	39,NW.¼ NW.¼	do.	J. M. Fisher, et al.	--	1900	80 58-m	5	0.5
587	7½ miles south	40,SE.¼ NE.¼	do.	A. M. Fisher	Clovis McDaniel	1924	-- 73-m	5	1.7
588	7⅝ miles south	40,NE.¼ SE.¼	do.	do.	do.	1924	-- 69-m	6	1.7
589	do.	40,SE.¼ SE.¼	do.	do.	--	1929	76 --	6	1.2
590	8½ miles south	45,NW.¼ SE.¼	do.	E. C. Hill Est.	Clovis McDaniel	1933	54 43-m	6-5/8	1.0
591	8⅜ miles south	4,NE.¼ NE.¼	T. 2 S. Blk. 33	Mrs. Eva Smith	--	1916	55 54-m	48	2.2
592	8¼ miles south	46,SE.¼ SE.¼	T. 1 S. Blk. 33	R. J. Stripling	J. Stripling	1912	100 82-m	10	0.5
593	1½ miles south	12,NE.¼ NE.¼	do.	J. W. Thorp	J. W. Thorp	1925	60 46-m	6	0.4
594	2½ miles south	12,SE.¼ SW.¼	do.	Leo Nall	--	--	-- 208-m	6	0.6
f/595	2 miles south	12,NW.¼ SW.¼	do.	U. G. Powell	--	1929	115 112-m	10	1.2
596	2½ miles southwest	11,SE.¼ SE.¼	do.	Mrs. G. Connally, et al.	Frank Knaus	1920	170 --	5	1.0
f/596a	3½ miles southwest	15,NE.¼ NE.¼	do.	do.	Merland Oil Co.	1928	4,400 --	20	--
597	2½ miles south	13,SW.¼ SW.¼	do.	J. B. Pickle	--	1920	150 147-m	5	1.8
598	3½ miles south	23,NE.¼ NE.¼	do.	L. B. Wright	--	--	-- 102-m	36	0.3
599	6 miles south	36,NE.¼ SW.¼	do.	B.& J.M. Fisher	Clovis McDaniel	1930	80 65-m	5-3/16	0.5
f/599a	5⅝ miles south	36,SW.¼ NW.¼	do.	do.	The California Co.	1928	3,933 --	24	--
600	7½ miles south	48,NW.¼ NE.¼	do.	J. P. Callahan	--	--	-- 113-m	6	0.2
f/601	8½ miles south	2,NW.¼ NW.¼	T. 2 S. Blk. 33	N. R. Cotter	--	--	-- 88-m	10	0.2
f/602	9 miles south	4,NE.¼ NW.¼	do.	Mrs. Eva Smith	Clovis McDaniel	1935	38 --	6	0
f/602a	8⅝ miles south	45,SE.¼ SW.¼	T. 1 S. Blk. 33	do.	Meriwether Oil Co.	1930	3,270 --	15½	--

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
578	105.1	Mar. 16, 1936	C,W	D,S	2,585	14 feet casing at top. Reported capacity, 5-10 gallons a minute.
579	122.2	do.	C,W	D,S	2,485	20 feet casing at top. Never fails.
580	124.1	do.	C,W	D,S	2,487	8 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
581	124.2	do.	C,W	S	2,587	10 feet casing at top. Reported capacity, 5-10 gallons a minute. Water reported unfit for domestic and stock uses.
582	134.1	do.	C,W	D,S	2,487	7 feet casing at top. Never fails.
583	123.0	do.	C,W	D,S	2,481	4 feet casing at top. Supplies 40 head of stock Reported weak supply.
584	38.5	do.	C,W	D,S	2,567	8 feet casing at top. Reported capacity, 2-5 gallons a minute.
585	39.1	do.	C,W	D,S	2,578	20 feet casing at top. Supplies 7 head of stock. Never fails.
586	31.5	do.	C,W	D,S	2,578	No casing. Top of well covered with concrete slab. Never fails.
587	49.5	do.	C,W	D,S	2,597	20 feet casing at top. Reported capacity, 5 gallons a minute.
588	57.6	do.	C,W	D,S	2,600	10 feet casing at top. Reported never fails.
589	56. g/	do.	C,W	D,S	2,612	15 feet casing at top. Reported water tastes flat. Never fails.
590	34.6	do.	C,W	D,S	2,618	10 feet casing at top. 20 feet, 6 inch perforated on bottom. Reported strong supply.
591	51.2	Mar. 17, 1936	C,W	S	2,677	Dug well. No casing. Reported weak supply.
592	73.6	do.	C,W	D,S	2,680	20 feet casing at top. Reported capacity, 10 gallons a minute.
593	43.4	do.	C,W	S	2,507	20 feet 6 inch casing at top; 20 feet perforated liner on bottom. Reported capacity, 2-5 gallons a minute.
594	186.2	do.	C,W	D,S	2,596	20 feet casing at top. Reported capacity, 10 gallons a minute. Near City Park.
595	105.5	do.	C,W	D,S	2,687	3 feet casing at top. Weak supply. Reported capacity, 2 barrels in 24 hours.
596	120 g/	do.	C,W	D,S	2,627	40 feet casing at top. Supplies 700 head of sheep and 100 head horses. Reported strong supply.
596a	--	--	None	N	2,575	Oil test. See log.
597	141.3	Mar. 17, 1936	C,W	D,S	2,647	4 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
598	100.2	do.	C,W	D,S	2,661	No casing. Boxed over top with wood. Reported capacity, 2-5 gallons a minute. Weak supply.
599	47.8	do.	C,W	D,S	2,619	3 feet casing at top. Reported capacity, 5-10 gallons a minute.
599a	--	--	None	N	2,623	Oil test. See log.
600	109.2	Mar. 17, 1936	C,W	D,S,I	2,707	14 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
601	86.0	do.	None	N	2,690	2 feet casing at top. Reported weak supply.
602	14. g/	do.	C,W	D,S	2,670	No casing. Strong supply. Reported water tastes flat.
602a	--	--	None	--	2,590	Oil test. See log.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
603	3¼ miles west	30, SW.¼ SW.¼	T. 1 N. Blk. 33	W. R. Creighton	--	1914	100 96-m	6	0.7
604	3⅝ miles southwest	4, SE.¼ NE.¼	T. 1 S. Blk. 33	J. T. Frazier	I. B. Gauble	--	-- 116-m	8	0.5
605	4½ miles southwest	4, SW.¼ SW.¼	do.	do.	Murdock Bros.	1933	180 --	6	1.7
f/605a	do.	do.	do.	do.	Southern Oil Co.	1934	5,504 --	15	--
f/606	4½ miles southwest	5, SE.¼ SE.¼	do.	Mrs. Cora Eley	--	--	-- 123-m	6	0.9
607	do.	9, SW.¼ NW.¼	do.	Mrs. Anna Coleman	--	--	129 128-m	10	0.7
608	2 miles southwest	2 NW.¼ NE.¼	do.	J. M. Anderson	Frank Knaus	1930	-- 118-m	6	0.8
609	1¼ miles west	31, SW.¼ SE.¼	T. 1 N. Blk. 33	Joe Flock	--	--	-- 125-m	6	0.9
610	1⅛ miles southwest	31, SE.¼ SE.¼	do.	J. B. Pickle	--	--	60 71-m	30	3.7
611	1⅜ miles west	31, NW.¼ SE¼	do.	W. R. Creighton	Judge Miles	1922	110 104-m	10	0.8
f/612	1½ miles west	2, NE.¼ SE.¼	do.	R. T. Green	--	1928	-- 92-m	10	0.2
613	9⅝ miles south	4, SW.¼ SE.¼	T. 2 S. Blk. 33	S. A. Petty	--	--	-- 82-m	6	0.3
614	10⅜ miles south	9, SW.¼ SW.¼	do.	M. M. Edwards	--	--	100 --	10	0.7
615	do.	8, NW.¼ SE.¼	do.	D. B. Cox	--	--	90 89-m	6	1.5
616	9 miles south	1, center SW ¼	T. 2 S. Blk. 32	A. M. Fisher	--	--	-- 237-m	5	2.4
f/616a	8¾ miles south	1, SE.¼ SW.¼	T. 2 S. Blk. 33	do.	Marland Oil Co.	1927	3,650 --	20	--
617	10 miles south	4, center S. line, S.½	do.	T. S. Currie	--	--	-- 97-m	6	1.1
618	10¼ miles south	5, NE.¼ NE.¼	do.	G. W. Overton	B. Shipman	1906	159 --	8	0.5
619	do.	6, NE.¼ NW.¼	T. 2 S. Blk. 32	Am. Maracaibo Oil Co.	Am. Maracaibo Oil Co.	1928	170 --	6	0
620	12 miles south	159, NW.¼ SW.¼	Blk. 32	W. R. Settles	Continental Oil Co.	1927	160 --	6	0
f/620a	11⅝ miles southeast	159, SE.¼ NW.¼	W.& N.W.Ry. Co., Blk. 29	do.	do.	1936	1,227 --	10	--
621	12¼ miles southeast	159, SE.¼ NE.¼	Blk. 32	do.	do.	1927	160 --	6	0
621a	do.	do.	do.	do.	do.	1927	160 --	6	--

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
603	92.6	Mar. 18, 1936	C,W	S	2,485	18 feet casing at top. Water reported unfit for drinking.
604	102.1	do.	C,W	S	2,500	100 feet casing at top. Strong supply. Reported water tastes salty.
605	107.0	do.	C,W	S	2,515	21 feet casing at top. Reported capacity, 5-10 gallons a minute. Water tastes salty.
605a	--	--	None	N	2,523	Oil test. See log.
606	110.0	Mar. 18, 1936	C,-	N	2,529	10 feet casing at top. Windmill damaged.
607	109.1	do.	C,W	D,S	2,536	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
608	106.0	do.	C,W	S	2,530	17 feet casing at top. Reported capacity, 5-10 gallons a minute. Weak supply.
609	120.5	do.	C,W	D	2,529	20 feet casing at top. Strong supply.
610	64.3	do.	B,H	D	2,513	No casing. Never fails.
611	96.2	do.	C,W	S	2,537	40 feet casing at top. Supplies 110 head of stock. Never fails.
612	78.3	do.	C,G,5	P	2,528	4 feet casing at top. Supplies swimming pool in summer.
613	79.5	Mar. 19, 1936	C,W	S	2,645	20 feet casing at top. Reported weak supply.
614	95. g/	do.	C,W	D,S	2,590	21 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
615	81.4	do.	C,W	D,S,I	2,577	20 feet casing at top. Never fails.
616	217.1	Mar. 23, 1936	C,W	S	2,760	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
616a	--	--	None	N	2,739	Oil test. See log.
617	80.9	Mar. 23, 1936	C,W	D,S	2,680	3 feet casing at top. Reported capacity, 5-10 gallons a minute. Strong supply.
618	139 g/	do.	C,W	D,S,I	2,570	No casing; concrete crib at top. Reported capacity, 5-10 gallons a minute. Irrigates garden.
619	120 g/	Mar. 26, 1936	C,E, 10	D, Ind,I	2,725	100 feet casing at top. Supplies oil company camp, also 12 pumping oil wells.
620	110. g/	do.	C,E,5	D,Ind	2,660	20 feet casing at top. Located in Glasscock County, Texas.
620a	--	--	--	--	2,656	Oil well. See log.
621	110. g/	Mar. 23, 1936	Air, Ng,25	D,Ind	2,650	140 feet casing at top. Continental Oil Co. has 10 pump jack wells with central power and 4 air lift wells. Reported total capacity, 6,500 gallons a day.
621a	--	--	C,Ng, 35	D,Ind	2,650	Wells located in Glasscock County; supply most of Chalk-Settles oil field.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.
e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.
f/ No water sample collected for analysis.
g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
622	9 3/4 miles south	132, NW. 1/4 SW. 1/4	W.&N.W.Ry. Co. Blk. 29	W. R. Settles	--	--	-- 221-m	8	0.7
623	11 1/4 miles southeast	130, SW. 1/4 SE. 1/4	do.	Forsans Water Works	--	1928	285 --	10	0.8
624	10 1/4 miles southeast	107, SE. 1/4 SW. 1/4	do.	Clayton Stewart	--	1927	-- 282-m	8	0.6
625	11 1/4 miles southeast	109, NW. 1/4 SW. 1/4	do.	Mrs. Dora Roberts	--	1934	-- 196-m	8	0.6
626	11 1/2 miles southeast	129, NE. 1/4 NE. 1/4	do.	do.	--	1928	207 --	5-3/16	0
627	12 1/4 miles southeast	99, SE. 1/4 SE. 1/4	do.	do.	--	--	-- 37-m	8	0.8
628	12 miles southeast	do.	do.	do.	--	--	-- 23-m	8	1.1
629	do.	do.	do.	do.	--	--	-- 22-m	8	0.9
630	do.	do.	do.	do.	--	--	-- 18-m	8	1.0
631	11 3/4 miles southeast	99, SE. 1/4 NE. 1/4	do.	do.	--	--	-- 12-m	48	1.0
632	12 1/4 miles southeast	98, NW. 1/4 SW. 1/4	do.	do.	--	--	-- 41-m	6	1.5
633	do.	110, NE. 1/4 NE. 1/4	do.	do.	--	--	-- 59-m	8	0.8
634	12 miles southeast	109, NW. 1/4 SE. 1/4	do.	do.	--	--	-- 102-m	5-3/16	0.5
635	10 3/4 miles southeast	100, NE. 1/4 SW. 1/4	do.	do.	--	--	207 214-m	8	0.5
f/635a	11 miles southeast	100, NW. 1/4 SE. 1/4	do.	do. Transcontinental Oil Co.		1926	3,730 --	20	--
636	6 miles south	31, SW. 1/4 SW. 1/4	T. 1 S. Blk. 32	J. & B. Fisher	--	1923	-- 108-m	6	0.8
637	13 1/2 miles southeast	156, NW. 1/4 NE. 1/4	W.&N.W.Ry. Co. Blk. 29	J. W. Baker	The California Co.	1929	200 --	8	--
638	14 3/4 miles southeast	139, SW. 1/4 SE. 1/4	do.	H. R. Clay	--	1900	100 --	10	0
639	16 1/2 miles southeast	142, NE. 1/4 SW. 1/4	do.	R. C. Sanderson	--	--	-- 97-m	6	1.0
640	17 miles southeast	142, NE. 1/4 NE. 1/4	do.	do.	--	--	-- 21-m	4 1/2	0.2
f/640a	do.	do.	do.	do.	--	--	Spring	--	--
641	18 1/2 miles southeast	149, SW. 1/4 NW. 1/4	do.	E. W. Douthit	E. W. Douthit	1912	30 32-m	8	1.7
642	18 3/4 miles southeast	do.	do.	do.	--	1926	80 45-m	8	0
643	11 1/4 miles southeast	82, NW. 1/4 SE. 1/4	do.	Mrs. Dora Roberts	Sam Childress	1916	30 18-m	6	0.5
643a	18 1/4 miles southeast	150, NW. 1/4 SE. 1/4	do.	E. W. Douthit	Joel Smith	1918	40 42-m	5 1/2	2.0
644	14 3/4 miles southeast	125, NE. 1/4 SE. 1/4	do.	Chalk School	--	1928	60 44-m	6-5/8	2.2
645	15 miles southeast	124, NE. 1/4 SW. 1/4	do.	Otis Chalk	--	1927	60 46-m	6	0.9

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
622	180.8	Mar. 23, 1936	C,W	S	2,730	20 feet casing at top. Supplies 5,000 head of sheep. Strong supply.
623	233 g/	Mar. 24, 1936	C,E,W, 6	P	2,780	16 feet casing at top. Reported production, 8,400 gallons in 10 hours.
624	233.5	do.	C,W	S	--	40 feet casing at top. Reported capacity, 10 gallons a minute.
625	132.5	do.	C,W	S	2,710	12 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
626	148 g/	do.	C,W	D,S,I	2,720	14 feet casing at top. Strong supply. Never fails.
627	21.1	Mar. 25, 1936	C,W	D,S,I	2,530	3 feet casing at top. Reported capacity, 5-10 gallons a minute.
628	19.2	do.	C,W	D,S,I	2,530	3 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
629	16.2	do.	C,W	D,S,I	2,530	6 feet casing at top. Reported capacity, 5-10 gallons a minute.
630	18.1	do.	C,W	D,S,I	2,530	5 feet casing at top. Strong supply. Never fails. Formerly a spring.
631	8.5	do.	C,W	D,S	2,625	Dug well; source of water is spring. Reported capacity, 10 gallons a minute.
632	34.3	do.	C,W	S	2,520	21 feet casing at top. Never fails.
633	54.2	do.	C,W	D,S	2,538	40 feet casing at top. Reported capacity, 10 gallons a minute.
634	70.3	do.	C,W	S	2,650	4 feet casing at top. Reported capacity, 10 gallons a minute.
635	189.7	do.	C,W	S	2,745	20 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
635a	--	--	None	N	2,753	Oil test. See log.
636	61.9	July 17, 1936	C,W	S	2,635	20 feet casing at top. Reported strong supply. Never fails.
637	--	--	C,Ng, 35	D,Ind	2,727	8 feet casing at top. Reported production, 400 barrels a day. See log.
638	41.3	Apr. 6, 1936	C,W	D,S	2,620	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
639	59.0	do.	C,W	S	2,515	20 feet casing at top. Never fails.
640	11.1	do.	C,W	S	2,485	21 feet casing at top. Reported capacity, 5-10 gallons a minute.
640a	Flows	do.	None	S	2,515	Near well 640, Sterling County, Texas. Estimated flow, ½ gallon a minute from sandstone.
641	22.5	do.	C,W	D,S	2,520	20 feet casing at top. Well located in Sterling County, Texas. Reported capacity, 5-10 gallons
642	26.0	do.	C,W	D,S,I	2,520	20 feet casing at top. Well located a minute. in Sterling County, Texas. Supplies 500 head of
643	11.1	Apr. 7, 1936	C,W	S	2,510	3 feet sheep, 100 head of cattle and irrigates casing at top. Never fails. garden.
643a	38.7	Apr. 6, 1936	C,W	S	2,535	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Located in Sterling County.
644	37.1	Apr. 7, 1936	C,Ng, 35	P	2,370	Pure Oil Company pumps well with rod line. Furnishes ample supply.
645	39.7	do.	C,W	D	2,565	20 feet casing at top. Fails in drought.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
646	15 miles southeast	124, SE. ¼ NW. ¼	W.&N.W.Ry. Co.Blk.29	Otis Chalk	Otis Chalk	1927	37 30-m	36	0.5
647	15¼ miles southeast	124, NE. ¼ SW. ¼	do.	do.	H. Whitmeyer	1927	90 80-m	6-5/8	1.0
648	do.	124, SE. ¼ SW. ¼	do.	do.	Continental Oil Co.	1928	-- 100-m	8	1.0
f/649	16¾ miles southeast	93, NE. ¼ NE. ¼	do.	W. T. Scott	Fuglar Oil Corp.	1955	-- 71-m	10	0.2
f/649a	do.	88, NE. ¼ SE. ¼	do.	Harry Fyman	Deep Rock Oil Co.	1925	3,202 --	15½	--
650	18½ miles southeast	91, NW. ¼ NW. ¼	do.	do.	--	1932	-- 18-m	36	2.0
651	13¾ miles east	29, NE. ¼ NE. ¼	T. 1 S. Blk. 30	M. H. O'Daniel	M. H. O'Daniel	1919	-- 7-m	48	0
f/651a	do.	do.	do.	do.	--	--	Spring	--	--
f/652	13¼ miles east	29, NE. ¼ NW. ¼	do.	do.	M. H. O'Daniel	1920	4 11-m	48	0
653	17½ miles east	6, SW. ¼ NW. ¼	do.	Mary Foster	Brown & Currie	1934	80 72-m	6	0
f/653a	16 miles east	47, SE. ¼ SE. ¼	T. 1 N. Blk. 30	C. D. Reed	Gibson & Johnson	1929	2,955 --	12½	--
654	10¼ miles east	58, NE. ¼ SE. ¼	T. 1 N. Blk. 31	E. C. Saunders	--	1900	-- 54-m	48	1.4
655	10¾ miles east	37, SW. ¼ SE. ¼	do.	H. T. Hale	--	1900	35 35-m	35	2.0
656	10¼ miles east	14, NE. ¼ NE. ¼	T. 1 S. Blk. 31	Magnolia Pet. Co.	Magnolia Pet. Co.	1926	22 20-m	90	0.5
f/656a	9¾ miles east	11, center SW. ¼	do.	John W. Furrh	Green Oil & Ref. Co.	--	3,503 --	12½	--
f/656b	8½ miles east	21, NE. ¼ SW. ¼	do.	D. A. Rhotan	--	--	Spring	--	--
657	10¼ miles east	14, SE. ¼ NE. ¼	do.	Magnolia Pet. Co.	Magnolia Pet. Co.	1929	-- 14-m	90	1.0
658	12 miles east	43, NE. ¼ NE. ¼	T. 1 N. Blk. 30	J. P. Davis	--	--	-- 18-m	36	0
659	10¼ miles east	48, SW. ¼ SW. ¼	T. 1 N. Blk. 31	C. A. Cranfill	--	--	25 17-m	36	0
660	10 miles east	2, SW. ¼ NE. ¼	T. 1 S. Blk. 31	LeRoy Echols	--	--	-- 37-m	48	0
661	9¾ miles east	2, NE. ¼ SW. ¼	do.	Elbert Echols	--	1918	45 44-m	48	0.4
662	9½ miles east	47, SW. ¼ SW. ¼	T. 1 N. Blk. 31	G. W. McGregor	Joe Crow	1934	80 72-m	36	0.3
663	7¾ miles east	45, SE. ¼ SW. ¼	do.	Mrs. J. B. Moore	--	--	-- 23-m	36	1.8
664	do.	4, SW. ¼ SW. ¼	T. 1 S. Blk. 31	Louie Hutto	--	--	-- 63-m	36	2.3
665	do.	44, SE. ¼ SW. ¼	T. 1 N. Blk. 31	Mrs. W. S. Miller	--	--	-- 27-m	48	0.8
666	6¼ miles east	43, NE. ¼ SE. ¼	do.	Charles Robinson	--	--	-- 41-m	48	1.1
667	do.	6, NE. ¼ NE. ¼	T. 1 S. Blk. 31	Ray Wilcox	--	--	-- 46-m	6	1.4

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
646	25.7	Apr. 7, 1936	C,W	D,I	2,566	No casing. Top of well boxed with wood. Irrigates garden.
647	72.4	do.	C,W	S	2,626	40 feet casing at top. Never fails.
648	88.5	do.	C,W	S	2,680	20 feet casing at top. Strong supply.
649	69.9	Apr. 16, 1936	C,Ng, 15	Ind	2,410	35 feet casing at top. Weak supply. Reported production, 2-5 gallons a minute.
649a	--	--	None	N	2,368	Oil test. See log.
650	14.5	Apr. 16, 1936	C,W	S	2,308	Dug well. No casing. Weak supply. Near dry creek bank.
651	2.2	do.	C,W	D,S	2,350	Dug well. No casing. Well has its source from spring. Nearly fails in drought.
651a	Seeps	do.	None	S,I	2,340	Irrigates small garden. Estimated flow, 2 barrels a day from sand and gravel.
652	3.7	do.	C,W	D,S	2,350	Dug well. No casing. Covered with concrete slab. Estimated capacity, 2-5 gallons a minute.
653	67.3	Apr. 15, 1936	C,Ng, 15	Ind	--	This well and 4 more nearby pump 250 barrels a day for Dodge-Denman oil field.
653a	--	--	None	N	--	Oil test. See log.
654	44.5	Apr. 17, 1936	C,E,3	D,Ind	2,440	Dug well. No casing. Partially supplies Dodge-Denman oil field. Reported production, 30 gallons a minute. Strong supply.
655	31.5	Apr. 20, 1936	C,W	D,S	2,401	Dug well. No casing. 7 inch drawdown pumping 21 gallons a minute for 42 hours.
656	19.4	do.	C,O, 30	D,Ind	2,290	Dug well. O, oil engine. Concrete curb. Reported production, 25 gallons a minute. Supplies oil camp at Jatan, in Mitchell County.
656a	--	--	None	N	2,272	Oil test. See log.
656b	Flows	Apr. 20, 1936	None	S	--	Largest flowing spring in Howard County. Estimated flow, 25 gallons a minute from gravel and sand in creek bed.
657	13.3	do.	C,G, 60	D,Ind	2,290	Dug well. Concrete curb. Supplies oil camp at Jatan, in Mitchell County. Reported production, 35 gallons a minute.
658	15.2	Apr. 21, 1936	C,W	D,S	2,370	Dug well. Concrete curb. Reported capacity, 5-10 gallons a minute.
659	14.0	do.	C,W	D,S,I	2,395	Dug well. No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute.
660	33.6	do.	C,W	D,S	2,400	Dug well. Concrete cribbed. Reported capacity, 5-10 gallons a minute.
661	42.6	do.	C,W	D,S	2,390	Dug well. Concrete cribbed. Strong supply. Reported capacity, 5-10 gallons a minute.
662	65.0	do.	C,W	S,I	2,410	Dug well. No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Never fails.
663	18.6	do.	C,W	D,S	2,400	Dug well. No casing. Reported capacity, 2-5 gallons a minute.
664	48.0	do.	C,W	S	2,380	Dug well. No casing. Never fails. Owner uses cistern water for drinking.
665	26.0	do.	C,W	D,S	2,410	Dug well. No casing. Estimated capacity, 5-10 gallons a minute. Never fails.
666	31.8	do.	C,W	D,S	2,430	Dug well. No casing. Never fails. Reported capacity, 5-10 gallons a minute.
667	37.1	do.	C,W	S	2,425	40 feet casing at top. Estimated capacity, 2-5 gallons a minute. Tenant uses cistern water for drinking.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
668	5½ miles east	43,SW.¼ SW.¼	T. 1 N. Blk. 31	Walter Robinson	--	--	-- 75-m	6	0.8
669	11¼ miles east	48,SE.¼ SE.¼	do.	Mrs. O. L. Williams, et al.	--	1932	-- 14-m	48	1.5
670	11⅜ miles east	7,SE.¼ NW.¼	T. 1 S. Blk. 30	G. W. McGregor	Francisco Gonzales	1924	35 34-m	48	0
f/671	12 miles east	18,SE.¼ SW.¼	do.	Eugene O'Daniel	--	--	-- 78-m	8¼	0.8
672	11½ miles east	24,SE.¼ NE.¼	T. 1 S. Blk. 31	Bob Powell	Gulf Prod. Co.	1929	30 --	90	0.7
f/672a	12¼ miles east	do.	do.	do.	--	--	Spring	--	--
673	12⅝ miles east	41,SE.¼ NW.¼	T. 1 N. Blk. 30	C. D. Read	Thomas Hopper	1934	-- 16-m	48	0.5
674	12¼ miles east	42,SE.¼ SE.¼	do.	R. A. McQuerry	--	--	-- 16-m	36	1.5
675	11⅜ miles east	42,SE.¼ NW.¼	do.	B. F. McKinney	--	1923	-- 27-m	48	1.5
676	do.	31,NW.¼ SW.¼	do.	H. D. Barron	--	--	-- 24-m	48	2.0
677	13⅝ miles northeast	32,NE.¼ NW.¼	do.	H. T. Hale	H. T. Hale	1935	16 16-m	36	0
678	13 miles northeast	29,SE.¼ SW.¼	do.	A. D. Shive	A. D. Shive	1934	-- 19-m	36	0.5
679	12¾ miles east	32,NE.¼ SW.¼	do.	J. C. Hale Est.	J. C. Hale Est.	1908	55 49-m	36	0.5
680	1 mile northeast	44,NW.¼ NE.¼	T. 1 N. Blk. 32	L. E. Coleman	Murdock Bros.	1936	72 72-m	6-5/8	1.0
680a	1 mile east	do.	do.	do.	do.	1929	100 --	8	--
681	6½ miles east	44,SW.¼ NW.¼	T. 1 N. Blk. 31	N. G. Hoover	N. G. Hoover	1918	45 47-m	44	1.2
682	6 miles east	43,SW.¼ NE.¼	T. 1 N. Blk. 32	Chas. Robinson	--	1922	-- 55-m	8	1.3
f/682a	do.	42,center NE.¼	T. 1 N. Blk. 31	W. J. Flowers	Owen-Sloan Oil Co.	1930	3,670 --	8¼	--
683	4¾ miles east	48,SE.¼ NW.¼	T. 1 N. Blk. 32	Walter Robinson Est.	--	1918	-- 94-m	6	1.3
684	5 miles east	1,NW.¼ NE.¼	T. 1 S. Blk. 32	M. G. Riggan	A. Stripling	1927	100 96-m	5	0.5
685	4¾ miles east	1,SW.¼ SW.¼	do.	Lillie O. Sides	--	--	-- 30-m	8	1.0
f/685a	5 miles east	12,NW.¼ NW.¼	do.	A. Richardson	Marland Oil Co.	1928	3,618 --	15	--
686	1¾ miles east	5,NE.¼ SE.¼	do.	C. L. Barnes	John Thorpe	1910	126 --	5	1.4
687	1½ miles east	5,SW.¼ NE.¼	do.	Ray Wilcox	Russell & Spain	1909	145 144-m	6	0
688	2⅔ miles southeast	9,SE.¼ NW.¼	do.	do.	Jess Honey	1915	175 --	6	0
689	1½ miles northeast	44,NE.¼ NE.¼	T. 1 N. Blk. 32	Clay Read	--	--	-- 48-m	48	1.9

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
668	66.4	Apr. 21, 1936	C,W	S	2,440	15 feet casing at top. Reported capacity, 5-10 gallons a minute. Water turbid.
669	9.4	Apr. 22, 1936	C,H	D,S	2,420	Dug well. No casing. Supplies 12 head of stock. Reported capacity, 2-5 gallons a minute.
670	29. g/	do.	C,W	D,S	2,450	Dug well. No casing. Never fails. Reported capacity, 5-10 gallons a minute.
671	62.0	do.	C,W	S	2,440	10 feet casing at top. Weak supply.
672	7.8	do.	C,G, 12	Ind	2,380	Dug well. Concrete cribbed. Oil company distills water before drinking. Reported production, 30 gallons a minute.
672a	Flows	do.	None	S	2,375	Near well 672. Located in creek bed. Flows from sand above red beds.
673	9.0	Apr. 24, 1936	C,W	D,S	2,365	Dug well. No casing. Nearly fails in drought. Estimated capacity, 2-5 gallons a minute.
674	14.3	do.	C,W	S	2,366	Dug well. Brick curb. Reported capacity, 2-5 galloms a minute.
675	22.9	do.	C,W	D,S	2,405	Dug well. Concrete curb. Weak supply. Reported capacity, 2-5 gallons a minute.
676	19.1	do.	C,H	D,S	2,410	Dug well. Cribbed with wood at top. Reported capacity, 2-5 gallons a minute.
677	12.4	do.	C,G, 24	D,S	2,400	Dug well. No casing. Measured production, 5 gallons a minute after 48 hours pumping.
678	14.4	do.	C,W	D,S	2,420	Dug well. Galvanized iron casing at top. Reported capacity, 2-5 gallons a minute.
679	42.0	do.	C,W	D,S	2,405	Dug well. Concrete curb. No casing. Supplies 130 head of stock. Weak supply.
680	42.0	do.	C,Ng, 9	D,S, P,I	--	Steel casing, top to bottom. Bottom 10 feet perforated. Reported production, 30 gallons a minute.
680a	--	--	C,W	P	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
681	39.5	Apr. 27, 1936	C,W	D,S,I	2,425	Dug well. No casing. Top curbed with brick. Reported capacity, 5-10 gallons a minute. Irrigates garden.
682	44.2	do.	C,W	D,S	2,440	55 feet casing at top. Reported capacity, 5-10 gallons a minute.
682a	--	--	None	N	--	Oil test. See log.
683	90.5	Apr. 27, 1936	C,W	D,S	2,455	45 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute.
684	79.5	do.	C,W	D,S	2,435	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
685	26.7	do.	C,W	D,S	2,370	4 feet casing at top. Effluent from Big Spring passes near this well on Beal Creek.
685a	--	--	None	N	2,361	Oil test. See log.
686	106 g/	Apr. 27, 1936	C,W	D,S	2,490	20 feet casing at top. Bottom 20 feet perforated. Near creek. Reported capacity, 5-10 gallons a minute.
687	133.2	do.	C,W	D,S,I	2,520	145 feet casing; bottom 20 feet perforated. Irrigates garden. On 4 hour test, well pumped 14.9 gallons a minute.
688	110 g/	do.	C,W	S	2,521	110 feet casing at top. Reported capacity, 5-10 gallons a minute.
689	39.4	do.	C,W	S	2,425	Dug well. No casing. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
689a	2½ miles northeast	40,SE.¼ NW.¼	T. 1 N. Blk. 32	M. H. Cardwell	--	--	Springs--		--
f/689b	2 miles east	41,NW.¼ SW.¼	do.	H. C. Read	Fuhrman Pet. Co.	1928	3,275 --	15	--
690	3 miles east	46,NE.¼ NW.¼	do.	J. G. Arnett	--	1929	-- 61-m	10	0.3
691	4¾ miles east	37,SW.¼ SW.¼	do.	Cliff Tolbert	--	--	-- 106-m	6	0.9
692	4¼ miles northeast	38,NE.¼ NW.¼	do.	Cosden Ref. Co.	Frank Knaus	1934	120 130-m	6-5/8	0.9
693	4 miles northeast	38,NW.¼ NW.¼	do.	do.	do.	1929	-- 130-m	6	1.0
694	4¼ miles northeast	38,SE.¼ NW.¼	do.	do.	do.	1930	140 135-m	6	1.0
695	10½ miles east	36,SW.¼ SW.¼	T. 1 N. Blk. 31	W. P. Young	--	1928	56 51-m	5	0.8
696	11 miles northeast	36,SW.¼ NE.¼	do.	W. M. Spears	--	1915	-- 59-m	6	1.3
697	10¼ miles east	35,SE.¼ SE.¼	do.	W. W. Lay	--	--	-- 49-m	5	1.8
698	10½ miles northeast	26,NE.¼ SE.¼	do.	R. V. Guthrie	--	--	-- 38-m	36	1.2
699	10¾ miles northeast	23,SE.¼ SE.¼	do.	W. W. Lay	--	--	-- 59-m	36	1.5
700	11 miles northeast	24,SW.¼ SW.¼	do.	J. R. Wheeler	--	--	-- 60-m	36	1.0
701	11½ miles northeast	25,NE.¼ NE.¼	do.	S. B. Buchanan	--	--	-- 75-m	6	2.7
702	11¾ miles northeast	24,SE.¼ NE.¼	do.	Mrs. Kate Wolf	--	--	-- 25-m	36	0.6
703	12 miles northeast	30,SE.¼ NW.¼	T. 1 N. Blk. 30	Leon Moffitt	--	--	60 50-m	40	1.4
704	13 miles northeast	29,NE.¼ NW.¼	do.	Frank Loveless	--	1934	6 8-m	36	1.2
705	10¼ miles northeast	23,SE.¼ SW.¼	T. 1 N. Blk. 31	W. H. Robinson	--	1919	-- 72-m	8	1.6
706	9¾ miles northeast	22,SE.¼ SE.¼	do.	Rose Feeler	--	--	-- 56-m	8	1.1
707	9½ miles northeast	27,SW.¼ NE.¼	do.	R. V. Guthrie	--	--	-- 84-m	36	1.4
708	9¼ miles northeast	22,SE.¼ SW.¼	do.	Jas. E. Robinson	--	--	-- 48-m	36	1.7
709	4 miles northeast	38,NE.¼ NW.¼	do.	Cosden Ref. Co.	Cosden Ref. Co.	--	-- 99-m	6	0
710	8½ miles northeast	28,NW.¼ NE.¼	do.	Sam Buchanan	--	1897	102 --	36	0.7
711	do.	21,SE.¼ SW.¼	do.	W. C. Westfall	--	1918	100 87-m	6	0.7
712	8¼ miles northeast	29,SE.¼ NW.¼	do.	S. F. Buchanan	--	1934	-- 53-m	8	1.4

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
689a	Flows	Mar. 24, 1936	None	S,I	--	Irrigates 20 acres of cotton land through tile pipe system.
689b	--	--	None	N	2,446	Oil test. See log.
690	51.0	Apr. 27, 1936	C,W	D,S	2,430	20 feet casing at top. Reported flat taste. Weak supply.
691	105.2	do.	C,W	D,S	2,490	5 feet casing at top. Flat taste. Reported capacity, 5-10 gallons a minute.
692	94.0	do.	C,E,7	Ind	2,540	40 feet casing at top. Measured production, 30 gallons a minute.
693	117.0	do.	C,E,7	Ind	2,530	21 feet casing at top. Reported production, 30 gallons a minute.
694	120. g/	do.	C,E,7	Ind	2,580	130 feet casing at top. Water has acid odor. Reported production, 30 gallons a minute.
695	35.7	Apr. 28, 1936	C,W	D,S,I	2,450	20 feet casing at top. Strong supply. Irrigates garden.
696	52.5	do.	C,W	D,S	2,460	14 feet casing at top. Reported capacity, 5-10 gallons a minute.
697	43.2	do.	C,W	D,S	2,450	20 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute.
698	34.5	do.	C,W	D,S	2,460	Dug well. No casing. Concrete crib at top. Reported capacity, 5-10 gallons a minute.
699	53.1	do.	C,W	D,S	2,480	Do.
700	54.1	do.	C,W	S	2,480	Dug well. No casing. Brick crib at top. Weak supply. Reported salty taste.
701	66.6	do.	C,W	D,S	2,470	40 feet casing at top. Reported capacity, 5-10 gallons a minute.
702	14.0	do.	C,W	D,S	2,430	Dug well. No casing. Concrete crib at top. Reported capacity, 5-10 gallons a minute.
703	47.7	do.	C,W	D,S	2,450	Dug well. No casing. Supplies 10 head of stock. Never fails.
704	3.9	do.	B,H	D,S	2,410	Dug well. Wood casing, top to bottom. Supplies 22 head of stock. Well has source from spring.
705	60.7	do.	C,W	S	2,510	4 feet casing at top. Reported unfit for drinking.
706	40.9	do.	C,W	D,S	2,510	No casing. Reported capacity, 5-10 gallons a minute. Reported flat taste.
707	74.1	do.	C,W	S	2,540	Dug well. Reported capacity, 5-10 gallons a minute. Reported unfit for drinking.
708	36.6	do.	C,W	D,S	2,540	Dug well. Brick curb. Reported capacity, 5-10 gallons a minute.
709	83.7	May 1, 1936	C,E,3	Ind	2,450	40 feet casing at top. Discharge measured by Pinch water meter, 30 gallons a minute.
710	70.7	do.	C,W	D,S	2,520	Dug well. Brick curb. Never fails.
711	55.1	do.	C,W	S	2,530	20 feet casing at top. Reported unfit for drinking.
712	30.6	do.	C,W	S	2,525	20 feet casing at top. Tenants use cistern water for drinking.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.
e/ Altitude of measuring point or city wells obtained from city engineer; all other altitudes obtained by barometric readings.
f/ No water sample collected for analysis.
g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
713	8 miles northeast	20,SE.¼ SE.¼	T. 1 N. Blk. 31	M. W. Walker	Olie Cathey	1913	70 63-m.	36	1.0
714	8¼ miles northeast	20,NE.¼ SW.¼	do.	do.	M. W. Walker	1900	72 71-m	36	2.7
715	8 miles northeast	29,NE.¼ NE.¼	do.	S. D. Buchanan	Jimmie Walker	1926	-- 69-m	8	1.0
716	7½ miles northeast	20,SE.¼ SW.¼	do.	M. W. Walker	do.	1931	-- 78-m	6	0.6
717	7 miles northeast	30,NW.¼ NE.¼	do.	J. W. Walker Est.	do.	1925	-- 97-m	6	1.0
718	10¼ miles east	38,NE.¼ SE.¼	do.	E. C. Saunders Est.	--	1925	-- 65-m	5	0.6
719	1 mile east	5,NE.¼ NW.¼	T. 1 S. Blk. 32	Lee Nuckels	Lee Nuckels	1934	130 --	8	0
719a	1¼ miles east	do.	do.	W. R. Settles	Frank Knaus	1926	150 --	8	--
720	7 miles northeast	19,SW.¼ SE.¼	T. 1 N. Blk. 31	I. W. McNew	--	--	-- 79-m	36	1.2
721	6¾ miles northeast	30,NE.¼ NW.¼	do.	J. A. Walker	--	--	-- 95-m	6	1.5
722	7¾ miles northeast	18,SE.¼ SE.¼	do.	G. W. Davis	R. B. Davidson	1924	97 76-m	47	0.5
723	8¼ miles northeast	17,SE.¼ SW.¼	do.	J. A. Bishop	S. R. Foster	1926	-- 89-m	40	0.7
724	8 miles northeast	20,NE.¼ NW.¼	do.	E. C. Crittenden	--	--	-- 71-m	40	1.1
725	9 miles northeast	21,NE.¼ NW.¼	do.	R-Bar School	--	--	-- 45-m	36	2.4
726	9¼ miles northeast	21,NE.¼ NE.¼	do.	B. F. Miller	Jas. E. Robinson	--	-- 41-m	34	1.2
727	9½ miles northeast	22,NW.¼ NW.¼	do.	Jas. E. Robinson	do.	1901	-- 40-m	36	1.7
728	do.	15,SW.¼ SW.¼	do.	do.	P. D. Wilson	--	-- 34-m	36	0.2
729	9¾ miles northeast	16,SE.¼ NE.¼	do.	R. E. Martin	--	--	-- 52-m	36	0.6
730	do.	15,NW.¼ NW.¼	do.	Jas. E. Robinson	--	--	-- 60-m	36	0.4
731	10¼ miles northeast	10,SW.¼ SW.¼	do.	Mrs. M. L. Musgrove	--	1928	160 167-m	6-5/8	1.2
732	do.	22,NE.¼ NE.¼	do.	Earl Hull	--	--	-- 57-m	6-5/8	0.2
733	do.	15,SE.¼ NE.¼	do.	S. L. Hull	--	--	-- 87-m	6-5/8	0.6
734	11¼ miles northeast	14,SE.¼ SE.¼	do.	B. T. Birkhead	--	--	-- 63-m	36	0.7
735	12 miles northeast	13,SE.¼ SE.¼	do.	C. D. Read	--	--	98 94-m	5	2.6
736	10 miles northeast	35,NW.¼ SE.¼	do.	J. M. Wilson	--	1926	-- 46-m	36	2.2
737	9¼ miles northeast	34,NE.¼ SE.¼	do.	D. W. Logan	--	--	-- 79-m	6-5/8	1.1
738	8¼ miles northeast	33,SE.¼ SE.¼	do.	W. W. Lay	--	--	-- 34-m	5	3.0

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
713	58.1	May 1, 1936	C,W	D,S,I	2,560	Dug well. Concrete crib at top. Never fails. Strong supply. Irrigates garden.
714	58.9	do.	C,W	D,S,I	2,570	Dug well. Concrete curb. Irrigates garden. Reported capacity, 5-10 gallons a minute.
715	58.0	do.	C,W	D,S	2,562	12 feet casing at top. Reported capacity, 5-10 gallons a minute.
716	75.1	do.	C,W	D,S	2,580	12 feet casing at top. Weak supply. Reported flat taste.
717	77.7	do.	C,W	D,S	2,456	4 feet casing at top. Never fails.
718	44.4	do.	C,W	D,S	2,440	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
719	127 g/	May 7, 1936	C,G, 1½	I	--	No casing. Drilled by hand with drop auger. Reported production, 5-10 gallons a minute.
719a	--	Oct. 18, 1936	C,W	D,S,I	--	20 feet casing at top. Estimated capacity, 5-10 gallons a minute. Irrigates small garden.
720	67.7	May 18, 1936	C,W	D,S	2,458	Dug well. No casing. Never fails. Reported capacity, 5-10 gallons a minute.
721	93.4	do.	C,W	D,S	2,459	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
722	56.5	do.	C,W	S	2,462	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Reported unfit for drinking.
723	61.7	do.	C,W	D,S	2,460	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Never fails.
724	55.6	do.	C,W	D,S	2,461	Dug well. No casing. Never fails. United States Government farm.
725	26.7	do.	C,W	P	2,459	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Never fails.
726	29.2	do.	C,W	S	2,460	Dug well. No casing. Reported capacity, 5-10 gallons a minute.
727	29.6	do.	C,W	D,S	2,460	Dug well. No casing. Never fails.
728	28.0	do.	-,W	N	2,461	Dug well. No casing.
729	47.7	do.	C,W	D,S	2,468	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Never fails.
730	55.3	do.	C,W	D,S	2,470	Dug well. No casing. Reported capacity, 2-5 gallons a minute.
731	131.1	do.	C,W	D,S	2,470	75 feet casing at top. Never fails.
732	51.5	do.	C,W	D	2,468	10 feet casing at top. Reported capacity, 2-5 gallons a minute.
733	80.3	do.	C,W	D,S	2,475	20 feet casing at top. Never fails.
734	54.1	do.	C,W	D,S	2,470	Dug well. No casing. Reported capacity, 5-10 gallons a minute.
735	84.6	do.	C,W	D,S	2,470	90 feet casing at top. Reported capacity, 5-10 gallons a minute.
736	44.3	May 19, 1936	C,W	D,S	2,420	Dug well. Brick curb. Weak supply. Reported pumps dry in 3 or 4 hours.
737	63.5	do.	C,W	D,S	2,430	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
738	29.4	do.	C,W	D,S	2,421	20 feet casing at top. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
739	9 miles northeast	27, SE.¼ SW.¼	T. 1 N. Blk. 31	R. V. Guthrie	--	--	-- 95-m	5	0.6
740	9¾ miles northeast	26, SE.¼ SW.¼	do.	do.	--	--	-- 76-m	5	1.9
741	10¼ miles northeast	26, NE.¼ SW.¼	do.	do.	--	--	-- 42-m	36	2.5
742	do.	35, NW.¼ NE.¼	do.	P. N. Shive	--	1926	-- 61-m	5	1.1
743	11¾ miles northeast	24, NW.¼ NE.¼	do.	Mrs. W. P. Young	Jim Fryer	1919	-- 45-m	40	2.6
744	12¼ miles northeast	18, SW.¼ SW.¼	T. 1 N. Blk. 30	Can Powell	--	1934	80 80-m	8	2.7
745	11¾ miles northeast	11, NW.¼ NE.¼	T. 1 N. Blk. 31	S. D. Buchanan	--	--	-- 64-m	44	1.1
f/745a	12¼ miles northeast	12, NE.¼ NW.¼	do.	W. L. Reed	E. J. Miley	1928	4,007 --	20	--
746	14 miles northeast	54, NE.¼ NE.¼	T. 2 N. Blk. 27	J. M. Pyle Est.	J. M. Pyle	1915	44 43-m	5	0.2
747	13½ miles northeast	54, NE.¼ NW.¼	do.	C. C. Harrington	--	--	-- 51-m	5	0.4
748	14 miles northeast	53, SW.¼ NW.¼	do.	W. F. Heckler	--	1909	42 44-m	40	2.3
749	14½ miles northeast	53, SE.¼ NE.¼	do.	Alvin Walker	--	--	-- 33-m	48	0
750	16 miles northeast	46, SW.¼ NW.¼	do.	A. W. Rowe	Jim Miles	1919	176 --	6-5/8	0.5
751	16¼ miles northeast	36, NE.¼ SE.¼	do.	J. B. Wheat	--	--	211 195-m	6	2.1
752	16½ miles northeast	46, NW.¼ NE.¼	do.	C. E. Kincannon	--	--	-- 217-m	5	3.3
753	17¼ miles northeast	34, SW.¼ SE.¼	do.	Ben Brown	--	--	-- 175-m	6	1.2
754	18 miles northeast	33, SW.¼ SW.¼	do.	Am. Nat'l Ins. Co.	--	1927	220 219-m	5-3/8	0.5
755	do.	48, NE.¼ NW.¼	do.	N. E. McMinn	--	--	-- 224-m	6	1.4
756	18¾ miles northeast	37, SW.¼ SW.¼	T. 2 N. Blk. 26	J. T. Joiner	--	--	100 86-m	6-5/8	0.8
757	18½ miles northeast	33, SE.¼ SE.¼	T. 2 N. Blk. 27	G. H. Brown	Cliff Meyers	1916	94 90-m	6	0.9
758	19½ miles northeast	36, NE.¼ SW.¼	T. 2 N. Blk. 26	J. L. Jones Est.	--	--	-- 204-m	6	1.6
759	20¼ miles northeast	8, NE.¼ NE.¼	H.&T.C.Ry. Co.,Blk.25	L. W. Jones	John Flanery	1912	300 261-m	5	0.5
760	20½ miles northeast	10, NE.¼ SE.¼	do.	M. N. Brown	Cliff Morrow	1933	226 226-m	5	1.2
761	21 miles northeast	12, NE.¼ NW.¼	T. 2 N. Blk. 26	J. L. Jones Est.	--	--	221 166-m	5-3/16	1.3
762	22 miles northeast	57, SW.¼ SW.¼	Lavaca Navigation, Blk.30	C. H. Rutledge	Cliff Morrow	1933	-- 225-m	6	0.7
763	23¼ miles northeast	58, SE.¼ NW.¼	do.	E. Guffie	-- Bell	1928	-- 217-m	6-5/8	0.5
764	22½ miles northeast	31, SE.¼ SE.¼	H.&T.C.Ry. Co.,Blk.25	do.	--	--	-- 170-m	6-5/8	1.0

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power e/	Use of water d/	Altitude above sea level e/	Remarks
739	77.4	May 19, 1936	C,W	D,S	2,455	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
740	53.4	do.	C,W	D,S	2,428	20 feet casing at top. Never fails.
741	29.4	do.	C,W	D,S	2,421	Dug well. No casing. Reported capacity, 5-10 gallons a minute.
742	47.5	do.	C,W	S	2,425	8 feet casing at top. Reported unfit for drinking.
743	41.4	do.	C,W	S	2,422	Dug well. No casing. Reported unfit for drinking. Stock will not drink water at times.
744	58.0	do.	C,W	D,S	2,425	10 feet casing at top. Never fails.
745	58.0	do.	C,W	S	2,412	Dug well. No casing. Well recently cleaned out.
745a	--	--	None	N	--	Oil test. See log.
746	39.3	May 19, 1936	C,W	S,I	2,448	10 feet casing at top. Irrigates garden. Never fails.
747	45.0	do.	C,W	S	2,455	No casing. Concrete block at top. Reported capacity, 5-10 gallons a minute.
748	42.0	do.	C,W	D,S	2,454	Dug well. No casing. Weak supply. Reported pumps dry in 2 hours. Supplies 38 head of stock.
749	28.5	do.	B,H	D,S	2,455	Dug well. No casing. Top of well covered with wood. Reported capacity, 2-5 gallons a minute.
750	120 g/	do.	C,W	S	2,409	100 feet casing at top. Reported salty, unfit for drinking. Reported capacity, 5-10 gallons
751	92.3	do.	C,W	S	2,412	100 feet casing at top. Reported salty taste, unfit for drinking. a minute.
752	167.3	May 21, 1936	C,W	D,S	2,395	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Reported salty taste.
753	163.1	do.	C,W	D,S	2,394	10 feet casing at top. Reported capacity, 5-10 gallons a minute. Tastes salty.
754	52.6	June 1, 1936	C,W	S	2,386	100 feet galvanized iron casing at top. Strong supply. Tenants do not drink water.
755	83.9	do.	C,W	D,S	2,390	100 feet casing at top. Reported capacity, 5-10 gallons a minute of salty tasting water.
756	76.9	do.	C,W	S	2,390	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Owner uses cistern water.
757	82.8	do.	C,W	S	2,390	10 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute of salty tasting
758	179.0	do.	C,W	S	2,409	Estimated 100 feet casing at top. Reported salty taste. Never fails. water.
759	205.8	do.	C,W	D,S	2,410	260 feet casing. Bottom joint perforated. Reported strong supply of highly mineralized water.
760	94.2	do.	C,W	D,S	2,410	185 feet casing at top. Reported capacity, 5-10 gallons a minute with salty taste.
761	140.4	do.	C,W	D,S	2,412	100 feet casing at top. Reported salty taste. Tenants use cistern water.
762	203.5	do.	C,W	D,S	2,420	100 feet casing at top. Reported capacity, 5-10 gallons a minute with salty taste.
763	113.7	do.	C,W	S	2,411	20 feet casing at top. Never fails. Tenant uses cistern water for drinking.
764	109.4	do.	C,W	S	2,420	100 feet casing at top. Reported capacity, 5-10 gallons a minute with flat salty taste.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
765	22 miles northeast	11,NE.¼ NW.¼	T. 2 N. Blk. 26	J. L. Jones Est.	--	--	-- 186-m	6	0.7
766	21 miles northeast	9,SE.¼ SE.¼	H.&T.C.Ry. Co.,Blk.25	Mrs. M. N. Brown	Cliff Morrow	--	300 125-m	6	0.6
767	20¾ miles northeast	10,NE.¼ NW.¼	do.	J. D. Williams	--	--	-- 89-m	6-5/8	1.7
768	21 miles northeast	28,NW.¼ NE.¼	do.	Texas Land & Mortgage Co.	--	--	40 50-m	6	0.9
769	20¾ miles northeast	28,SE.¼ NW.¼	do.	do.	Ramond Davidson	1926	67 66-m	4	0.7
770	21 miles northeast	33,SW.¼ SW.¼	do.	R. T. Shaffer	do.	1933	63 63-m	8	0.5
771	21¼ miles northeast	33,SE.¼ SW.¼	do.	do.	H. C. Carr	1910	48 51-m	6	0.5
f/772	22 miles northeast	32,center SW.¼	do.	J. A. Shaffer	Houston Moore	--	24 --	36	0
773	18¾ miles northeast	15,NE.¼ NE.¼	do.	Wayne Ingram	Wayne Ingram	1910	18 23-m	36	2.2
774	19¾ miles northeast	7,SW.¼ NW.¼	do.	W. A. Reed	--	--	65 --	8	1.4
775	18½ miles northeast	31,SE.¼ NW.¼	T. 2 N. Blk. 27	Leo Warren	--	--	-- 243-m	6	0.8
776	19¼ miles northeast	32,NE.¼ NW.¼	do.	J. L. Jones Est.	--	--	-- 271-m	12	0.6
777	19¾ miles northeast	13,NE.¼ SW.¼	H.&T.C.Ry. Co.,Blk.25	F. P. Dearen	Cliff Morrow	1934	125 129-m	6-5/8	1.3
778	19⅓ miles northeast	14,NE.¼ NW.¼	do.	J. H. Appleton	--	--	24 22-m	36	1.7
779	16¾ miles northeast	21,SW.¼ NW.¼	T. 2 N. Blk. 27	G. W. Barber,Jr.	Frank Knaus	1930	236 253-m	6	0.5
780	do.	11,SW.¼ SE.¼	T. 2 N. Blk. 31	J. P. Anderson	--	--	-- 81-m	5-3/16	2.2
781	do.	11,NE.¼ SW.¼	do.	M. C. Buchanan	Cecil Murdock	1934	100 99-m	8	0.8
f/782	16½ miles north	10,NE.¼ SE.¼	do.	do.	do.	1931	110 --	6	0.7
783	17¼ miles north	2,SW.¼ SW.¼	do.	Jim Moates	do.	1929	100 101-m	6	0.2
784	16½ miles north	4,SE.¼ SE.¼	do.	Mrs.Minnie Smith	--	--	109 115-m	6	1.1
785	17¾ miles north	46,SE.¼ SE.¼	T. 3 N. Blk. 31	G. Y. Wilson Est.	R.G.&W.L. Wilson	1928	30 20-m	36	0.3
786	do.	do.	do.	do.	Clovis McDaniel	--	-- 224-m	8	0.9
f/787	20½ miles north	34,SE.¼ SE.¼	do.	do.	R. G. Murdock	1930	575 --	6	1.5
788	15 miles north	8,NW.¼ SW.¼	T. 2 N. Blk. 31	Mrs.Minnie Smith	--	1930	100 99-m	5-3/16	0.9
789	16 miles north	5,NW.¼ SW.¼	do.	do.	Ramond Davidson	1929	248 209-m	6	0.5
790	16¾ miles north	4,SE.¼ NW.¼	do.	do.	--	1920	50 46-m	6	1.2
791	15¼ miles north	14,NW.¼ NE.¼	do.	J. P. Anderson	--	--	-- 64-m	6	0.6

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
765	143.5	June 2, 1936	C,W	S	2,395	100 feet casing at top. Never fails. Tenants use cistern water.
766	113.8	do.	C,W	D,S	2,398	100 feet casing at top. Reported capacity, 5-10 gallons a minute.
767	47.5	do.	C,W	D,S	2,398	4 feet casing at top. Never fails.
768	34.2	do.	C,W	D,S	2,399	3 feet tin casing at top. Never fails.
769	63.3	do.	C,W	D,S	2,401	50 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
770	53.4	do.	C,W	D,S,I	2,401	8 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
771	49.4	do.	C,W	D,S,I	2,402	6 feet casing at top. Irrigates garden. Weak supply.
772	20.0	do.	C,W	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Tenant uses cistern water for drinking.
773	9.1	do.	C,W	D,S	2,410	Dug well. Concrete curb. Never fails. Strong supply during 1918 drought.
774	45 g/	do.	C,W	D,S	2,408	Dug 12 feet. Galvanized, corrugated casing. Drilled 8 inch hole to 65 feet. Weak supply.
775	168.3	do.	C,W	S	2,409	10 feet casing at top. Tenants do not drink water. Never fails. Water turbid.
776	249.7	do.	C,W	S	2,412	8 feet casing at top. Never fails. Reported salty taste.
777	89.3	June 3, 1936	C,W	S	2,409	100 feet casing at top. Never fails. Tenants use tank water for drinking.
778	6.8	do.	C,W	D,S,I	2,410	Dug well. No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Never
779	194.1	do.	C,W	S	2,450	No casing. Reported capacity, 5-10 gallons a minute of salty tasting water. Tenants fails.
780	38.3	do.	C,W	S	2,456	50 feet casing at top. Reported capacity, 5-10 gallons a minute. drink cistern water.
781	87.6	do.	C,W	D,S	2,462	8 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
782	86.0	do.	C,W	N	2,462	100 feet casing at top. Weak supply.
783	94.0	do.	C,W	D,S	2,465	18 feet casing at top. Drawdown, 7 feet after pumping 30 minutes. Weak supply.
784	105.4	do.	C,W	D,S,P	2,472	No casing. Reported capacity, 5-10 gallons a minute. Supplies Morris School.
785	13.2	do.	C,W	D,S,I	2,445	Dug well. Brick crib at top. Reported capacity. 5-10 gallons a minute. Irrigates garden.
786	190.3	do.	C,W	S	2,455	No casing. Reported unfit for drinking. Never fails.
787	190. g/	do.	C,W	S	2,478	150 feet casing at top. Located in Borden County. Reported salty water unfit for drinking.
788	95.2	June 4, 1936	C,W	S	2,460	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
789	198.1	do.	C,W	S	2,460	100 feet casing at top. Reported capacity, 2-5 gallons a minute. Never fails.
790	45.7	do.	C,W	D,S	2,450	No casing. Weak supply. Reported pumps dry in 4 hours.
791	54.0	do.	C,W	S	2,470	No casing. Strong supply. Never fails.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
792	14½ miles north	16, NW.¼ NE.¼	T. 2 N. Blk. 31	E. R. Gideon	--	--	-- 124-m	8	1.2
793	14¾ miles north	7, NE.¼ SW.¼	do.	C. B. Lawrence	--	--	-- 135-m	6	0.3
794	13½ miles north	16, SW.¼ SW.¼	do.	W. M. Read	--	--	140 --	8	0.5
795	13 miles north	17, SW.¼ NW.¼	do.	G. J. Couch	--	1895	140 146-m	6	0.3
796	12¾ miles north	24, NE.¼ SE.¼	T. 2 N. Blk. 32	J. F. Heckler	J. Wright	1906	150 --	4	0.8
797	13¼ miles north	13, SE.¼ SW.¼	do.	Lewis Underwood	--	1926	140 140-m	5-3/16	0.8
798	12¾ miles north	23, NE.¼ NE.¼	do.	L. F. Lawrence	Childress & McWhorter	1907	170 144-m	6	0.5
799	13½ miles north	13, SW.¼ NW.¼	do.	G. W. Keel	Leo Nall	1906	130 141-m	6	1.2
800	13¾ miles north	14, NE.¼ NE.¼	do.	J. A. Wasson	--	--	140 148-m	6	0.7
801	14 miles north	12, SW.¼ SW.¼	do.	Arch. C. Ginsley	Frank Knaus	1925	158 --	10	0.5
802	14¼ miles north	11, NE.¼ SW.¼	do.	Bill Poe	--	--	-- 143-m	5-3/16	1.1
803	14⅝ miles north	11, NE.¼ NE.¼	do.	Gay Hill School	--	--	-- 159-m	5-3/16	0.9
804	15 miles north	2, NW.¼ SE.¼	do.	Mrs. Laura Simpson	--	1894	160 --	6	0
805	16¼ miles north	48, NW.¼ SW.¼	T. 3 N. Blk. 32	do.	--	--	-- 149-m	6	1.0
806	16 miles north	48, NW.¼ SW.¼	do.	M. C. Hayden	--	--	-- 160-m	8	0.7
807	do.	46, NE.¼ SE.¼	do.	Edward Simpson	Ramond Davidson	1934	172 171-m	6	0.6
808	13⅝ miles north	11, SW.¼ SW.¼	T. 2 N. Blk. 32	Tom Spencer	Frank Knaus	1926	172 152-m	6	0.9
809	16⅝ miles north	39, NE.¼ SE.¼	T. 3 N. Blk. 32	E. Clanton	--	--	-- 68-m	8	1.2
810	17¼ miles north	38, NW.¼ NW.¼	do.	S. L. Lockhart	Murdock Bros.	1927	-- 68-m	6	1.7
811	18 miles north	35, SW.¼ NW.¼	do.	H. H. Harland	--	--	50 --	5	0.9
812	16¼ miles north	40, SE.¼ SE.¼	do.	Akin Simpson	--	--	-- 159-m	6	0.7
813	15 miles north	3, SW.¼ NW.¼	T. 2 N. Blk. 32	J. W. Nix	B. Jones	1925	160 --	6	0.5
814	14¾ miles north	3, NW.¼ SW.¼	do.	A. W. Nix Est.	Ruppert Russell	1922	160 --	4	1.0
815	14½ miles north	9, NE.¼ NE.¼	do.	W. L. Scott	--	--	170 --	5	0.8

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
792	80.0	June 4, 1936	C,W	D,S	2,490	No casing. Drawdown, 4 feet after pumping 8 hours. Never fails.
793	126.4	do.	C,W	D,S	2,490	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
794	131.3	June 5, 1936	C,W	D,S	2,470	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
795	93.5	do.	C,W	D,S	2,470	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
796	125 g/	do.	C,W	D,S,I	2,473	150 feet casing. Bottom 20 feet perforated. Irrigates garden. Strong supply.
797	133.7	do.	C,W	D,S,I	2,475	136 feet casing at top. Irrigates garden. Never fails.
798	137.1	do.	C,W	D,S	2,479	No casing. Strong supply. Reported capacity, 5-10 gallons a minute. Located in town of Luther.
799	133.0	do.	C,W	D,S,I	2,480	20 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
800	120.0	do.	C,W	D,S,I	2,480	No casing. Irrigates garden. Never fails. Reported capacity, 5-10 gallons a minute.
801	146.0	do.	C,W	D,S,I	2,581	20 feet casing at top. Irrigates garden. Never fails.
802	122.7	do.	C,W	D,S,I	2,488	10 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
803	135.5	do.	C,W	P	2,490	20 feet casing at top. Never fails. Reported strong supply.
804	148.0	do.	C,W	D,S,I	2,595	150 feet casing at top. Irrigates garden. Never fails.
805	144.1	do.	C,W	S	2,490	4 feet casing at top. Reported capacity, 5-10 gallons a minute.
806	137.0	do.	C,W	D,S,I	2,495	No casing. Irrigates garden. Strong supply. Never fails.
807	147.0	do.	C,W	D,S,I	2,495	165 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
808	141.3	June 9, 1936	C,W	D,S,I	2,472	50 feet casing at top. Irrigates garden. Hole caved 20 feet at bottom.
809	59.6	do.	C,W	D,S	2,458	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
810	56.4	do.	C,W	D,S	2,460	6 feet casing at top. Strong supply. Never fails.
811	34.1	do.	C,W	D,S	2,445	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
812	153.3	do.	C,W	D,S,I	2,485	10 feet casing at top. Irrigates garden. Never fails.
813	148.0	do.	C,W	D,S,I	2,485	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
814	152.0	do.	C,W	D,S	2,488	157 feet casing. Bottom 20 feet perforated. Reported capacity, 5-10 gallons a minute.
815	150.0	do.	C,W	D,S	2,490	100 feet casing at top. Reported capacity, 5-10 gallons a minute.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.
e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.
f/ No water sample collected for analysis.
g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
816	13¾ miles north	10, NW.¼ SW.¼	T. 2 N. Blk. 32	R. C. Oliver	Frank Knaus	--	175 159-m	6	1.3
817	13 miles north	16, NE.¼ NE.¼	do.	W. S. Proctor	--	--	-- 144-m	8	0.8
818	12¼ miles north	22, NW.¼ NW.¼	do.	Williams & Miller Gin Co.	Frank Knaus	1955	164 152-m	6	0.6
819	12 miles north	21, SE.¼ NE.¼	do.	Sid Oliver	--	--	160 --	6	0
820	10¾ miles north	27, NW.¼ SW.¼	do.	W. R. Puckett	--	--	-- 105-m	8	1.2
821	10¼ miles north	33, NE.¼ NE.¼	do.	O. J. Brown	Tom McWhorter	1908	112 127-m	6	0.6
822	9¾ miles north	39, SW.¼ SW.¼	do.	J. B. Ryan	--	--	-- 141-m	6	0.8
823	11 miles north	27, SE.¼ SE.¼	do.	W. B. Puckett	--	--	115 --	6	0.8
824	11¼ miles north	26, SE.¼ SW.¼	do.	Atlas Life Ins. Co.	--	--	120 --	6	0.5
825	11¾ miles north	25, SW.¼ NW.¼	do.	Mrs. Florence Jones	J. Shipman	1934	140 119-m	6	0.6
826	9½ miles north	38, SE.¼ SE.¼	do.	H. S. Miller	--	--	140 129-m	6	0.5
827	8¾ miles north	46, NE.¼ NE.¼	do.	W. C. Brooks	--	1906	130 117-m	8	0.8
828	8¼ miles north	47, SW.¼ SW.¼	do.	Mrs. W. B. Sneed	Jimmie Walker	1928	115 113-m	5	0.9
829	8½ miles north	1, NW.¼ NW.¼	T. 1 N. Blk. 32	Elmer Terry	--	--	-- 114-m	6	1.1
830	9 miles northeast	6, NW.¼ SE.¼	do.	Geo. McGreagor	--	--	-- 46-m	40	0.9
831	9½ miles northeast	35, SW.¼ SE.¼	T. 2 N. Blk. 31	Guy Wallace	Ramond Davidson	1935	100 84-m	5	0.7
832	3 miles north	29, SW.¼ NW.¼	T. 1 N. Blk. 32	T. F. Nabors	--	--	-- 66-m	6	2.7
f/832a	3¾ miles north	20, SE.¼ SE.¼	do.	A. G. Haynes	Marland Oil Co.	1927	3,440 --	20	--
833	5½ miles north	17, NE.¼ NE.¼	do.	A. C. Brigance	--	--	-- 161-m	6	1.0
f/834	7½ miles north	44, SE.¼ SE.¼	T. 2 N. Blk. 32	J. M. Cross	--	--	-- 123-m	6	0.7
835	8 miles north	48, SE.¼ NE.¼	do.	Mrs. W. T. Reed	Murdock Bros.	--	-- 158-m	36	0
836	10 miles north	36, NE.¼ NE.¼	do.	Ed Muriel	--	--	-- 103-m	5	2.2
837	11¼ miles north	19, NW.¼ SW.¼	do.	Mrs. M. J. Bogard	--	--	-- 152-m	8	0.8
838	13½ miles north	12, SE.¼ NE.¼	T. 2 N. Blk. 33	W. M. Reidy	--	--	-- 149-m	5	2.2
839	16 miles north	42, SW.¼ SW.¼	T. 3 N. Blk. 32	Lone Star Land Co.	--	--	-- 159-m	5-5/8	1.2
840	17¼ miles north	31, NW.¼ SW.¼	do.	H. A. Pace	--	--	-- 175-m	6	0.8
841	18¼ miles north	30, NW.¼ SW.¼	do.	P. H. McKee	Bill Kinkaid	1925	-- 102-m	6	2.0

J. Foward Samuell, Project Superintendent.

No.	Water level: Depth below measuring point (feet)	Water level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
816	165 g/	June 9, 1936	C,W	D,S,I	2,490	No casing. Strong supply. Irrigates garden.
817	139.5	do.	C,W	D,S	2,488	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
818	127.7	do.	C,W	D,S, Ind	2,488	160 feet casing. Bottom 20 feet perforated. Supplies cotton gin. Reported capacity, 5-10
819	140 g/	do.	C,W	N	2,487	No casing. Tape stopped at 180 feet. Hole caved at bottom. gallons a minute.
820	86.6	do.	C,W	D,S,I	2,485	50 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
821	122.0	June 10, 1936	C,W	D,S,I	2,472	No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Never fails.
822	111.7	do.	C,W	D,S	2,470	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
823	101 g/	do.	C,W	D,S,I	2,470	115 feet casing. Bottom 20 feet perforated. Irrigates garden. Reported capacity, 5-10 gal-
824	60 g/	do.	C,G, 2½	I	2,475	No casing. Irrigates 5 acres. lons a minute. Strong supply. Drawdown, 4 feet after pumping
825	114.7	do.	C,W	D,S,I	2,474	No casing. Irrigates garden. Report- 40 days. ed capacity, 5-10 gallons a minute.
826	121.6	do.	C,W	D,S,I	2,476	8 feet casing at top. Irrigates garden. Never fails.
827	108.0	do.	C,W	D,S,I	2,480	Do.
828	108.1	do.	C,W	D,S,I	2,479	20 feet casing at top. Irrigates garden. Never fails.
829	105.8	do.	C,W	D,S	2,478	No casing. Weak supply. Reported capacity, 2-5 gallons a minute.
830	43.2	do.	C,W	D,S	2,472	Dug well. No casing. Weak supply. Reported capacity, 2-5 gallons a minute.
831	85 g/	do.	C,W	D,S	2,475	No casing. Reported capacity, 2-5 gallons a minute. Never fails.
832	58.3	Sept. 1, 1936	C,W	D	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
832a	--	--	None	N	--	Oil test. See log.
833	143.7	Sept. 1, 1936	C,W	S	--	5 feet casing at top. Reported capacity, 5-10 gallons a minute.
834	118.0	do.	C,W	S	--	No casing. Reported capacity, 5-10 gallons a minute. Drawdown, 1 foot after pumping 2 hours.
835	71.6	do.	C,W	D,S	--	No casing. Well dug 83 feet. Bottom 75 feet, 8 inch drilled hole. Weak supply.
836	51.5	do.	C,W	D,S	--	50 feet casing at top. Reported capacity, 5-10 gallons a minute.
837	110.0	do.	C,W	D,S,I	--	10 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
838	144.0	do.	C,W	D,S	--	7 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
839	102.0	do.	C,W	D,S	--	20 feet casing at top. 20 feet perforated liner at bottom. Caved at bottom. Reported strong
840	146.0	do.	C,W	D,S	--	20 feet casing at top. Re- supply until 1935. ported capacity, 5-10 gallons a minute.
841	97.0	do.	C,W	D,S	--	80 feet casing at top. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
842	18½ miles north	25,SE.¼ NE.¼	T. 3 N. Blk. 33	J. F. Winnan	--	--	-- 99-m	5	1.3
843	19 miles northwest	28,NE.¼ NW.¼	do.	C. E. West	Dud Boland	1924	144 141-m	5	0.5
844	19⅝ miles northwest	19,SW.¼ SE.¼	do.	G. T. Palmer	--	1922	135 134-m	6	1.4
845	6½ miles north	6,SW.¼ SW.¼	T. 1 N. Blk. 32	Ray Smith	--	--	-- 56-m	6	1.4
846	do.	6,NW.¼ SW.¼	do.	Earl Phillips	--	--	-- 48-m	8	1.0
f/847	12¼ miles north	13,SW.¼ SW.¼	T. 2 N. Blk. 33	Hariet Wharteen	--	1936	-- 79-m	8	0
848	15¼ miles north	47,SE.¼ SE.¼	T. 3 N. Blk. 33	C. O. Robertson	--	--	-- 137-m	6	1.0
849	16½ miles north	39,NE.¼ SE.¼	do.	Rosetta Blackburn	--	--	-- 119-m	6	1.0
850	17½ miles northwest	34,NW.¼ SW.¼	do.	R. H. Quinn	--	--	-- 120-m	6	1.4
851	18¼ miles northwest	28,SW.¼ SE.¼	do.	I. W. Rogers	Judd Miles	1926	114 110-m	6	1.2
852	18¾ miles northwest	30,SE.¼ SE.¼	do.	Mary Graham	--	--	-- 120-m	6	0.7
853	do.	36,NE.¼ NE.¼	T. 3 N. Blk. 34	Soash School	J. Morrow	1929	122 109-m	8	1.1
854	19½ miles northwest	26,NE.¼ SE.¼	do.	Bill Bass	--	--	-- 103-m	6	0.7
855	19¾ miles northwest	25,NW.¼ NW.¼	do.	T. J. Connor	--	1918	140 92-m	6	0.8
856	20 miles northwest	24,SE.¼ SE.¼	do.	Ed Lauderdale	--	1936	-- 128-m	6	0.4
857	20⅛ miles northwest	13,SE.¼ SE.¼	do.	Mrs. Mary E. Hubner	B. Harris	1910	-- 168-m	6	0.8
858	20¼ miles northwest	20,NE.¼ NW.¼	T. 3 N. Blk. 33	Henry Riley	--	1927	140 133-m	6-5/8	1.0
859	17½ miles northwest	42,NE.¼ NE.¼	do.	R. N. Adams	--	--	-- 129-m	6	1.3
860	16½ miles northwest	40,SW.¼ SW.¼	do.	Delia S. Wright	--	--	116 118-m	8	1.2
861	15⅜ miles northwest	44,SE.¼ SE.¼	do.	do.	--	--	-- 68-m	4	1.5
862	15½ miles northwest	46,SE.¼ SW.¼	do.	Albert Fisher	--	--	-- 91-m	6	0.3
863	do.	5,NW.¼ NW.¼	T. 2 N. Blk. 33	R. A. B. Shortes	--	--	-- 93-m	36	0.5
864	16½ miles northwest	48,SE.¼ SW.¼	T. 3 N. Blk. 34	H. L. Batton	--	--	-- 55-m	6	3.7
865	17¼ miles northwest	46,SE.¼ SE.¼	do.	P. E. Foster	--	--	-- 70-m	4½	0.7
866	16¼ miles northwest	2,NW.¼ SW.¼	T. 2 N. Blk. 34	W. G. Page	--	--	-- 63-m	5	1.6
867	15½ miles northwest	11,NW.¼ SW.¼	do.	Willis Page	--	--	-- 57-m	6	0.7
868	14½ miles northwest	18,NW.¼ NW.¼	do.	West-Knott School	V. R. Hughes	1935	-- 66-m	6	3.1

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
842	93.0	Sept. 1, 1936	C,W	P	--	4 feet casing at top. Supplies town of Vealmore. Reported capacity, 5-10 gallons a minute.
843	123.0	do.	C,W	D,S	--	26 feet casing at top. Never fails. Weak supply.
844	120.0	do.	C,W	D,S	--	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
845	53.6	Sept. 2, 1936	C,W	D,S	--	Do.
846	44.7	do.	C,W	S	2,630	No casing. Reported capacity, 5-10 gallons a minute. Reported unfit for drinking.
847	76.2	do.	C,W	S	--	No casing. Weak supply. Reported capacity, 2-5 gallons a minute.
848	129.2	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
849	108.0	do.	C,W	D,S	--	40 feet casing at top. Reported capacity, 2-5 gallons a minute. Strong supply.
850	116.2	do.	C,W	D,S	--	2 feet casing at top. Reported capacity, 2-5 gallons a minute.
851	106.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
852	113.0	do.	C,W	S	--	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
853	98.0	do.	C,W	P	2,764	20 feet casing at top. 20 feet perforated at bottom. Reported capacity, 2-5 gallons a minute.
854	100.0	do.	C,W	S	--	No casing. Estimated capacity, 2-5 gallons a minute. Drawdown, 1 foot after pumping 4 hours.
855	85.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Never fails.
856	120.0	do.	C,W	S	--	No casing. Reported capacity, 2-5 gallons a minute. Never fails.
857	132.0	do.	C,W	D,S	2,751	20 feet casing at top. 20 feet perforated liner at bottom. Strong supply.
858	105.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Strong supply.
859	106.0	do.	C,W	D,S	2,747	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
860	112.0	do.	C,W	D,S	--	3 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
861	47.5	Sept. 3, 1936	C,W	S	2,679	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Located on creek bank.
862	84.5	do.	C,W	S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
863	77.0	do.	C,W	D,S	--	Dug well. Concrete crib at top. Well cleaned out Sept. 2, 1936. Strong supply.
864	46.3	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
865	51.3	do.	C,W	S	--	60 feet casing at top. Reported unfit for drinking. Weak supply.
866	41.2	do.	None	N	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
867	52.5	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Never fails.
868	62.0	do.	C,W	P	2,597	60 feet casing. Bottom joint perforated. Strong supply. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
869	14 miles northwest	18,NE.¼ NE.¼	T. 2 N. Blk. 34	City of East-Knott	--	--	-- 68-m	6	0
870	do.	13,NE.¼ SW.¼	do.	J. W. Neil heirs	--	--	-- 34-m	36	0
871	13¾ miles northwest	19,NW.¼ NW.¼	do.	S. C. Gist	Murdock Bros.	1930	54 50-m	6	3.2
872	14 miles northwest	8,SW.¼ SE.¼	T. 2 N. Blk. 33	M. G. Walker	--	--	-- 22-m	36	1.5
873	15 miles northwest	5,SW.¼ SW.¼	do.	M. Gonzales	--	--	-- 71-m	5	0.6
874	15¾ miles northwest	1,NE.¼ SE.¼	T. 2 N. Blk. 34	S. A. Johnson	--	--	-- 44-m	40	2.4
875	15 miles northwest	12,SW.¼ NE.¼	do.	G. H. Shorter	--	--	-- 51-m	6	1.2
876	12½ miles northwest	20,NW.¼ SW.¼	T. 2 N. Blk. 33	J. T. McCauley	--	--	-- 28-m	40	3.4
877	10¼ miles northwest	42,SE.¼ NE.¼	do.	E. C. Witt	--	--	-- 20-m	36	2.5
878	8¼ miles northwest	46,SE.¼ NE.¼	do.	R. B. Cline	--	--	-- 71-m	42	1.0
879	8¾ miles northwest	39,SW.¼ SW.¼	do.	J. H. Hanks	--	--	-- 24-m	42	3.4
880	10½ miles northwest	33,NE.¼ NE.¼	do.	Viola McGinnis	--	--	-- 20-m	36	3.0
881	11½ miles northwest	28,NE.¼ NE.¼	do.	C. A. Burk	--	--	-- 22-m	40	2.7
882	9½ miles northwest	44,NW.¼ NE.¼	do.	W. S. Martin	--	--	-- 11-m	48	0.7
f/882a	do.	41,SE.¼ SE.¼	do.	do.	Brown, Cady, & Donnelly	1928	3,390 --	6-5/8	--
883	10¼ miles northwest	43,NW.¼ NW.¼	do.	J. West	--	--	-- 23-m	36	2.5
884	11¼ miles northwest	25,SE.¼ SE.¼	do.	Lester Fisher	--	--	-- 39-m	5	3.7
885	12¼ miles northwest	40,NE.¼ NE.¼	Bauer & Cockrell, Blk. A	B. B. Free	--	--	-- 47-m	36	2.0
886	12¾ miles northwest	22,NW.¼ NW.¼	T. 2 N. Blk. 33	J. A. Peugh	--	--	-- 50-m	6	4.4
887	13½ miles northwest	49,SE.¼ NE.¼	Bauer & Cockrell, Blk. A	Lee Cole	--	--	-- 57-m	36	0.3
888	14¾ miles northwest	16,SE.¼ SE.¼	do.	J. G. Nickles	--	--	-- 69-m	46	2.2
889	13¾ miles northwest	18,SE.¼ SW.¼	T. 2 N. Blk. 34	T. A. Gaskins	--	--	-- 60-m	40	0
890	12¾ miles northwest	20,NW.¼ NE.¼	do.	Roman Bros.	--	--	-- 47-m	36	1.0
891	11¾ miles northwest	31,NW.¼ NW.¼	T. 2 N. Blk. 33	Cliff Talbot	--	--	-- 22-m	36	3.4
892	2¾ miles northwest	20,NE.¼ SE.¼	T. 1 N. Blk. 33	P. C. Leatherwood	--	--	-- 63-m	36	1.6
893	3¼ miles north	30,NW.¼ NW.¼	T. 1 N. Blk. 32	R. L. Schwerzenbach	--	--	-- 74-m	40	0.9
893a	do.	30,SE.¼ NW.¼	do.	do.	--	--	90 --	40	1.0

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
869	62.2	Sept. 3, 1936	C,W	P	2,615	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
870	29.0	do.	C,W	S	--	Dug well. No casing. Located in dry lake. Reported capacity, 5-10 gallons a minute.
871	38.0	do.	C,W	D,S	2,597	54 feet casing at top. Bottom joint perforated. Reported capacity, 5-10 gallons a minute.
872	22.0	do.	C,W	S	--	Dug well. Top boxed with wood. Located on flat creek bank. Weak supply.
873	44.5	do.	C,W	D,S	--	No casing. Reported capacity, 5-10 gallons a minute. Drawdown, 2 feet after pumping 8 hours.
874	38.8	do.	C,W	S	--	Dug well. Top covered with wood. Located near dry lake. Weak supply.
875	42.0	do.	C,W	D,S	--	No casing. Located edge of dry lake. Weak supply. Reported capacity, 2-5 gallons a minute.
876	27.4	do.	B,H	D,S	--	Dug well. Wood curb at top. Weak supply. Located near creek bank.
877	16.6	do.	B,H	D,S	--	Dug well. Tin crib at top. Weak supply. Reported capacity, 2-5 gallons a minute.
878	67.0	Sept. 4, 1936	C,W	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute.
879	22.1	do.	B,H	D	--	Dug well. No casing. Tenants boil water before drinking. Weak supply.
880	17.2	do.	C,W	D,S	--	Dug well. Brick curb. Weak supply.
881	20.2	do.	B,H	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Weak supply.
882	6.3	do.	C,W	D,S	2,565	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Located near creek. Never fails.
882a	--	--	None	N	2,552	Oil test. See log.
883	21.5	Sept. 4, 1936	C,W	D,S	2,530	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Never fails.
884	33.0	do.	C,W	D,S	2,541	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
885	44.2	do.	C,W,G, 1½	D,S	2,546	Dug well. Wood curb. Reported capacity, 5-10 gallons a minute.
886	16.5	do.	C,W	D,S	2,557	20 feet casing at top. Located near center of dry lake. Strong supply.
887	53.1	do.	C,W	D,S	2,587	Dug well. No casing. Located 200 yards west of dry lake. Reported capacity, 2-5 gallons a minute.
888	64.0	do.	C,W	D,S,I	--	Dug well. No casing. Supplies 3 families and irrigates gardens. Reported capacity, 5-10 gallons a minute.
889	52.4	do.	-,W	N	--	Dug well. No casing. Located north edge of dry lake. Reported capacity, 2-5 gallons a minute.
890	44.3	do.	C,W	N	--	Dug well. Rock crib at top. Reported capacity, 2-5 gallons a minute.
891	21.7	do.	C,W	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Weak supply.
892	51.7	Sept. 9, 1936	C,W	D,S	--	Dug well. Concrete curb at top. Reported capacity, 2-5 gallons a minute.
893	69.7	do.	C,W	D,S	2,606	Dug well. Wood cover at top. Weak supply. Reported capacity, 2-5 gallons a minute.
893a	69 g/	Apr. 1, 1936	C,W	D,S	--	Dug well. Concrete curb at top. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
894	3⅜ miles north	19,NE.¼ SE.¼	T. 1 N. Blk. 33	J. W. Curtis	Murdock Bros.	1926	91 97-m	6	1.7
895	4¾ miles north	18,SW.¼ NW.¼	T. 1 N. Blk. 32	Mrs. F. B. Blalock	--	--	-- 90-m	5	1.5
896	6 miles north	11,SE.¼ NE.¼	T. 1 N. Blk. 33	Mrs. Dora Roberts	--	--	-- 67-m	6	0
897	7¼ miles northwest	2,NE.¼ NW.¼	do.	F. M. Holley	Murdock Bros.	1932	-- 93-m	6	1.2
898	7¾ miles northwest	46,SE.¼ SE.¼	do.	R. B. Cline	--	--	-- 70-m	40	2.2
899	8¼ miles northwest	5,NE.¼ NE.¼	do.	J. W. Smith	--	--	-- 33-m	36	2.2
900	9 miles northwest	44,SW.¼ SW.¼	T. 2 N. Blk. 33	W. S. Martin	--	--	-- 22-m	40	1.8
901	9¾ miles northwest	30,NW.¼ SW.¼	Bauer & Cockrell, Blk. A	Guitar Est.	--	--	31 --	42	0
902	10½ miles northwest	31,NE.¼ SE.¼	do.	E. E. Coughey	--	--	-- 33-m	50	1.5
903	10¼ miles west	10,NW.¼ SE.¼	T. 1 N. Blk. 34	J. G. Crawford	J. G. Crawford	1930	-- 26-m	45	1.4
904	9¼ miles west	11,SW.¼ NE.¼	do.	W. J. Copeland	W. J. Copeland	1935	-- 32-m	43	0
905	8¼ miles west	12,SW.¼ NE.¼	do.	H. H. Wilkerson	H. Ford	1925	-- 55-m	40	1.8
906	8¾ miles west	13,SE.¼ SE.¼	do.	J. M. Bates	--	--	-- 32-m	40	0.6
907	8 miles west	24,NW.¼ SW.¼	do.	H. H. Wilkerson	--	--	-- 36-m	42	1.5
908	6¾ miles west	34,SE.¼ NW.¼	do.	P. E. Rust, et al.	--	--	-- 72-m	6	0.2
909	7 miles west	1,NW.¼ NW.¼	do.	Arch. Ford	Arch. Ford	1930	-- 44-m	38	2.5
910	11⅜ miles west	6,NE.¼ SW.¼	do.	G. M. Long	--	1915	-- 25-m	41	2.2
911	12 miles west	28,SW.¼ SW.¼	do.	H. H. Wilkerson	--	1927	-- 14-m	40	0.6
912	11 miles west	5,SW.¼ SW.¼	do.	W. H. Abrams, Agt.	--	--	-- 22-m	36	2.3
913	10½ miles west	8,SW.¼ NE.¼	do.	Birl Field	--	--	-- 29-m	5	0.4
914	9¼ miles west	31,NE.¼ SE.¼	do.	H. H. Wilkerson	--	--	-- 16-m	39	2.0
915	7¾ miles southwest	11,NW.¼ NE.¼	T. 1 S. Blk. 34	Mabel Quinn	--	--	-- 10-m	5	1.8
f/915a	do.	11,SE.¼ SE.¼	do.	do.	Marland Oil Co.	1926	3,750 --	15½	--
916	4¾ miles northwest	12,SE.¼ SE.¼	T. 1 N. Blk. 33	J. T. Miller	--	--	-- 72-m	6	1.4
917	5¾ miles northwest	10,SE.¼ SE.¼	do.	E. D. Hull	--	--	-- 67-m	6	2.2
918	6⅜ miles northwest	8,SW.¼ NE.¼	do.	Jno. C. Adams	--	--	-- 45-m	5-3/8	2.2
919	do.	21,NW.¼ SE.¼	Bauer & Cockrell, Blk. A	Guitar Est.	--	--	-- 52-m	41	2.7

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
894	79.1	Sept. 9, 1936	C,W	S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
895	89.2	do.	C,W	D,S	--	20 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
896	60.0	do.	C,W	S	--	20 feet casing at top. Reported unfit for drinking.
897	86.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
898	66.1	do.	C,W	S	--	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Strong supply.
899	30.2	do.	C,W	S	--	Dug well. Concrete curb at top. Weak supply.
900	17.2	do.	B,H	S	--	Dug well. Concrete curb at top. Weak supply. Reported unfit for drinking.
901	27.6	do.	C,W	D,S	--	Dug and drilled well. Concrete crib at top. Weak supply.
902	27.5	do.	C,W	D,S	--	Dug well. Wood casing at top. Reported capacity, 2-5 gallons a minute.
903	24.7	do.	C,W	S	--	Dug well. Wood curb. Gypsum taste. Reported capacity, 2-5 gallons a minute.
904	30.1	do.	B,H	S	--	Dug well. No casing. Weak supply; unfit for drinking.
905	54.4	do.	C,W	D,S	--	Dug well. Wood curb. Weak supply. Reported capacity, 2-5 gallons a minute.
906	28.7	do.	C,W	S	--	Dug well. Wood curb. Reported unfit for drinking. Weak supply.
907	31.3	do.	C,W	S	--	Dug well. Wood curb. Tenant uses cistern water. Weak supply.
908	71.3	do.	C,W	S	--	20 feet casing at top. Weak supply. Reported unfit for drinking.
909	42.7	Sept.10, 1936	C,W	S	2,463	Dug well. Wood curb. Weak supply. Reported capacity, 2-5 gallons a minute.
910	23.5	do.	C,W	S	--	Dug well. No casing. Weak supply. Reported unfit for drinking.
911	13.1	do.	C,W	S	--	Dug well. No casing. Weak supply. Reported capacity, 2-5 gallons a minute. Reported unfit for drinking.
912	18.4	do.	C,W	S	--	Dug well. Wood curb. Weak supply. Reported gypsum taste.
913	21.9	do.	C,W	S	2,461	20 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
914	15.7	do.	C,W	S	--	Dug well. Wood curb. Weak supply. Located near salt lake.
915	7.8	do.	C,W	S	--	3 feet casing at top. Weak supply. Located west bank of Elbow Creek. Reported gypsum taste.
915a	--	--	None	N	2,494	Oil test. See log.
916	63.5	Sept.10, 1936	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
917	64.6	do.	C,W	D,S	--	20 feet casing at top. Located edge of dry lake. Reported capacity, 5-10 gallons a minute.
918	24.5	do.	C,W	D,S	--	18 feet casing at top. Drawdown, 2 feet after pumping 5-10 gallons a minute for 4 hours.
919	51.5	do.	C,W	D,S	--	Dug well. Top cribbed with brick. Weak supply. Located in a dry lake.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
f/919a	6⅓ miles west	14, center, SE. corner	Bauer & Cockrell, Blk. A	Guitar Est.	Marland Oil Co.	1927	3,507 --	20	--
920	5⅔ miles northwest	16, NE.¼ NW.¼	T. 1 N. Blk. 33	J. W. Phillips	--	--	-- 53-m	48	3.0
921	4½ miles northwest	17, SE.¼ NE.¼	do.	W. H. Ward	--	--	-- 93-m	8¼	4.2
922	4 miles northwest	22, SE.¼ NE.¼	do.	J. A. Forrest	--	1934	-- 79-m	41	0.2
923	3 miles west	23, SE.¼ SE.¼	do.	R. T. Kelley	Murdock Bros.	--	136 --	10	2.2
f/923a	4¾ miles west	4, NW.¼ SE.¼	Bauer & Cockrell, Blk. A	Guitar Est.	Marland Oil Co.	1928	4,208 --	15	--
924	2⅓ miles northwest	24, SE.¼ SE.¼	T. 1 N. Blk. 33	B. Leatherwood	--	--	-- 89-m	6	2.2
f/924a	do.	do.	do.	Walter Pike	D. C. Reed	1936	3,398 --	15½	--
925	3¼ miles southeast	16, NE.¼ NE.¼	T. 1 S. Blk. 32	B. B. Fox	City of Big Spring	1936	242 240-m	8	0
f/925a	3⅔ miles southeast	10, SW.¼ SW.¼	do.	do.	--	--	Spring	--	--
926	3 miles southeast	17, NE.¼ NE.¼	do.	Joe B. Neal	--	--	-- 126-m	8	1.2
f/926a	do.	do.	do.	do.	Worth B. Andrews	1928	4,005 --	15½	--
927	2¾ miles south	18, SE.¼ NW.¼	do.	J. W. Clark	Ramond Davidson	1934	-- 124-m	6-5/8	0.8
f/928	3½ miles south	18, SE.¼ SW.¼	do.	J. Davis	--	--	110 --	6-5/8	1.1
929	4⅔ miles southeast	21, SE.¼ SE.¼	do.	B. E. Fox	Frank Knaus	1927	-- 94-m	6-5/8	1.2
f/929a	6 miles southeast	24, SW.¼ NW.¼	do.	Dora Roberts	General Oil Co.	1927	3,000 --	15½	--
930	5 miles southeast	28, NW.¼ NE.¼	do.	Hardy Morgan	Frank Knaus	1936	-- 124-m	6-5/8	1.0
f/931	5½ miles southeast	32, NW.¼ NE.¼	do.	do.	--	--	240 --	8	0.5
932	7 miles south	41, NE.¼ SW.¼	do.	B. & J. Fisher	--	--	-- 111-m	8	0.5
f/932a	6½ miles southeast	41, NE.¼ NE.¼	do.	City of Big Spring	Frank Knaus	1957	230 --	8	--
f/933	7½ miles southeast	45, NW.¼ NW.¼	do.	Hardy Morgan	City of Big Spring	1929	160 --	8	0
f/934	7⅔ miles southeast	do.	do.	do.	--	1929	180 --	8	0
f/935	7¾ miles south	44, SE.¼ SE.¼	do.	do.	--	1929	160 --	8	0
f/935a	8 miles south	43, SE.¼ SE.¼	do.	City of Big Spring	Frank Knaus	1937	247 --	8	--
936	20 miles southeast	208, NW.¼ SW.¼	W.&N.W.Ry. Co., Blk. 29	S. G. Childress	S. G. Childress	1911	132 130-m	6-5/8	0.7
937	19½ miles southeast	223, NE.¼ NE.¼	do.	Mrs. P. A. Ratliff	Calvin Adams	1936	125 --	6-5/8	0
938	18½ miles southeast	180, SW.¼ SW.¼	do.	J. B. Hollis	--	--	115 115-m	6	0.7

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
919a	--	--	None	N	--	Oil test. See log.
920	52.4	Sept.10, 1936	C,W	D,S	--	Dug well. Cribbed with brick at top. Weak supply. Reported capacity, 2-5 gallons a minute.
921	82.9	do.	C,W	D,S	--	4 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
922	77.2	do.	C,W	S	--	Dug well. Wood curb. Weak supply. Reported unfit for drinking.
923	133.5	do.	C,W	S	--	10 feet casing at top. 40 feet perforated 6 inch casing at bottom. Weak supply.
923a	--	--	None	N	2,514	Oil test. See log.
924	63.2	Sept.10, 1936	C,W	D,S	2,515	20 feet casing at top. 20 feet perforated liner at bottom. Strong supply.
924a	--	--	None	N	2,515	Oil test. See log.
925	212.0	Aug. 14, 1936	None	N	2,772	No casing. Estimated capacity, 30 gallons a minute. City of Big Spring test well. See log.
925a	Flows	do.	None	D,S	2,559	Concrete curb. Flows 2 gallons a minute through ¾ inch pipe to concrete stock tank below spring.
926	84.4	Sept.22, 1936	C,W	S	2,759	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
926a	--	--	None	N	2,762	Oil test. See log.
927	89.3	June 25, 1936	C,W	D,S	2,665	10 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
928	77.0	do.	C,W	D,S	2,669	18 feet casing at top. Reported capacity, 5-10 gallons a minute.
929	75.1	Aug. 25, 1936	C,W	S	2,633	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
929a	--	--	None	N	2,456	Oil test. See log.
930	89.9	Aug. 25, 1936	C,W	D,S	2,632	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
931	184.2	do.	C,W	S	2,761	No casing. Hole caving. Reported capacity, 5-10 gallons a minute.
932	102.2	Aug. 27, 1936	C,W	S	2,673	10 feet casing at top. Located on creek bank. Reported capacity, 5-10 gallons a minute.
932a	--	--	None	N	--	City test well. No casing. Estimated capacity, 30 gallons a minute. See log.
933	117.7	Aug. 26, 1936	None	N	2,694	No casing. Test drilled by City of Big Spring.
934	147.3	Aug. 27, 1936	None	N	2,707	Do.
935	117.0	do.	C,W	S	2,740	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
935a	--	--	None	N	--	City test well. No casing. Reported capacity, 15 gallons a minute. See log.
936	75.0	Sept.21, 1936	C,W	D,S	2,604	20 feet casing at top. Pumps dry in 1 hour pumping 5-10 gallons a minute. In Glasscock County.
937	80 g/	do.	C,G, 25	Ind	2,555	60 feet casing at top. Production, 1000 barrels water in 10 hours. Strong supply. In Glasscock County.
938	100.0	Oct. 1, 1936	C,W	D,S	2,607	10 feet casing at top. In Glasscock County. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
939	15½ miles southeast	185, NW.¼ NW.¼	W.&N.W.Ry. Co., Blk.29	A. M. Burns	--	1936	-- 124-m	10	1.4
f/940	18¼ miles southeast	181, NE.¼ SE.¼	do.	Fairview School	Clay Bedell	1927	-- 106-m	8	0
f/941	16⅔ miles southeast	193, NW.¼ NW.¼	do.	I. W. Morgan	--	--	-- 128-m	8	0.2

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level: Depth below measuring point (feet)	Water Level: Date of measurement	Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
939	98.0	Oct. 1, 1936	C,W	S	2,612	20 feet casing at top. In Glasscock County. Reported capacity, 5-10 gallons a minute.
940	90.5	do.	C,W	D	2,594	No casing. Reported capacity, 5-10 gallons a minute. In Glasscock County.
941	97.4	do.	C,W	D,S	2,600	Do.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.
e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.
f/ No water sample collected for analysis.
g/ Water level reported.

Water level measurements of observation wells in Howard County, Texas
(Table of well records herewith gives full descriptions of these wells.)

Date of measurements 1936 a/	Time	Depth to water (feet)
Well 1		
City of Big Spring. City Park. Measuring point is top of 15 inch casing, level with ground. Nearest pumping well is 500 feet northeast.		
Jan. 17	-- --	155.1
May 5	8:15 a.m.	160.8
8	8:10 a.m.	160.7
12	8:05 a.m.	160.1
12	10:05 a.m.	166.8
26	10:00 a.m.	158.6
28	9:15 a.m.	155.5
29	10:00 a.m.	157.1
June 4	9:00 a.m.	158.9
11	1:00 p.m.	165.2
16	2:00 p.m.	162.0
18	8:00 a.m.	163.9
20	8:05 a.m.	164.9
22	2:25 p.m.	164.2
24	8:55 a.m.	164.1
July 3	9:00 a.m.	165.1
7	10:00 a.m.	165.5
8	9:50 a.m.	165.5
10	4:45 p.m.	166.0
20	1:15 p.m.	168.5
22	8:00 a.m.	169.4
Sept.17	9:00 a.m.	174.4
Well 2		
City of Big Spring. 1½ miles south of Big Spring. Measuring point is top of 6 inch casing, level with ground. Nearest pumping well is 500 feet northeast.		
Jan. 17	4:00 p.m.	176.1
May 5	8:40 a.m.	166.5
8	8:35 a.m.	165.6
12	8:25 a.m.	166.7
26	10:40 a.m.	165.3
28	1:05 p.m.	165.6
29	11:20 a.m.	165.8
June 4	9:30 a.m.	169.1
11	1:25 p.m.	172.6
16	2:30 p.m.	169.2
18	8:25 a.m.	171.8
20	8:35 a.m.	170.8
22	2:50 p.m.	171.3
24	9:25 a.m.	171.8
Well 2--Continued		
July 3	9:30 a.m.	172.1
7	10:00 a.m.	172.8
8	10:15 a.m.	173.0
10	4:15 p.m.	172.9
20	1:30 p.m.	175.3
22	8:25 a.m.	177.4
Sept.17	9:30 a.m.	184.8
1937		
Jan. 24	2:30 p.m.	170.2
Well 3		
City of Big Spring. 1½ miles south of Big Spring. Measuring point is top of 6 inch casing, 1.42 feet above ground. Nearest pumping well is 300 feet northeast.		
Jan. 17	9:00 a.m.	158.1
May 5	9:00 a.m.	166.2
8	8:50 a.m.	165.7
12	8:55 a.m.	166.7
26	11:35 a.m.	165.2
28	3:15 p.m.	165.1
29	2:00 p.m.	165.7
June 4	10:00 p.m.	169.1
11	1:50 p.m.	172.6
16	3:10 p.m.	169.5
18	8:50 a.m.	171.3
20	8:55 a.m.	170.9
22	3:20 p.m.	171.6
24	9:50 a.m.	171.4
July 3	10:00 a.m.	171.9
7	11:00 a.m.	172.8
8	10:45 a.m.	173.1
10	3:45 p.m.	173.0
20	1:45 p.m.	175.4
22	8:40 a.m.	177.4
Sept.17	10:00 a.m.	184.8
1937		
Jan. 24	2:45 p.m.	170.2
Well 4		
City of Big Spring. 1½ miles south of Big Spring. Measuring point is top of 12½ inch casing, 1.67 feet above ground. Nearest pumping well is 300 feet east.		
Jan. 17	-- --	152.4
May 5	9:20 a.m.	164.8
Well 4--Continued		
May 8	9:05 p.m.	164.3
12	9:30 a.m.	164.4
26	2:35 p.m.	161.2
28	4:00 p.m.	162.1
29	3:45 p.m.	162.4
June 4	10:45 a.m.	171.2
11	2:20 p.m.	178.1
16	3:50 p.m.	174.0
18	9:40 a.m.	176.1
20	9:45 a.m.	167.9
22	3:45 p.m.	175.1
24	10:20 a.m.	177.1
July 3	10:30 a.m.	178.7
7	11:30 a.m.	179.3
8	11:15 a.m.	179.4
10	3:15 p.m.	178.6
20	2:00 p.m.	182.2
22	9:00 a.m.	183.7
Sept.17	11:30 a.m.	199.5
Well 6		
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8¼ inch casing in concrete block, 1.17 feet above ground. Nearest pumping well is located in SE¼ sec. 17, 7,200 feet distant.		
Feb. 5	-- --	71.5
May 8	8:00 a.m.	71.9
June 21	1:30 p.m.	71.1
22	11:30 a.m.	72.1
24	2:45 p.m.	72.1
July 3	11:40 a.m.	71.1
9	2:45 p.m.	71.9
20	3:45 p.m.	72.5
22	2:25 p.m.	72.0
Aug. 21	8:04 a.m.	74.7
Sept. 5	4:30 p.m.	72.2
8	1:52 p.m.	71.7
12	4:30 p.m.	72.0
17	2:00 p.m.	71.8
Well 9		
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 6 inch casing in concrete block, 1 foot above ground. No		

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth to water (feet)
Well 9--Continued		
pumping wells nearby.		
Jan. 21	-- --	63.0
22	-- --	64.4
May 7	3:35 p.m.	59.1
June 18	10:00 a.m.	61.1
20	10:10 a.m.	61.1
22	10:45 a.m.	62.1
24	2:25 p.m.	62.1
July 3	11:15 a.m.	62.2
7	1:00 p.m.	61.9
9	2:00 p.m.	61.8
20	3:00 p.m.	61.3
22	11:00 a.m.	62.0
Aug. 10	3:50 p.m.	62.9
21	8:26 a.m.	64.2
Sept. 5	4:00 p.m.	61.6
8	1:47 p.m.	61.4
12	4:15 p.m.	61.7
17	2:30 p.m.	61.6
Well 9a		
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 9 inch casing in concrete block, 0.75 foot above ground. No pumping wells nearby.		
Jan. 22	9:00 a.m.	64.8
May 7	3:15 p.m.	63.1
Aug. 21	9:18 a.m.	63.7
Sept. 5	4:15 p.m.	61.2
1937		
Jan. 24	3:00 p.m.	61.1
Well 15		
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing in concrete block, 1 foot above ground. No pumping wells nearby.		
Jan. 24	-- --	79.0
May 7	2:45 p.m.	78.7
June 18	10:35 a.m.	80.2
20	10:35 a.m.	79.6
22	10:15 a.m.	81.3
24	2:10 p.m.	79.1
July 3	1:00 p.m.	79.9
7	1:30 p.m.	79.5
20	2:45 p.m.	79.8
22	11:20 a.m.	80.2
Aug. 10	3:15 p.m.	81:4
Well 15--Continued		
Aug. 21	9:42 a.m.	82.3
Sept. 5	3:45 p.m.	80.1
8	1:40 p.m.	76.7
12	4;00 p.m.	79.0
17	4:00 p.m.	79.8
Well 18		
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing, 0.83 foot above ground. Nearest pumping well is in sec.17, 1 mile east.		
Jan. 22	-- --	93.5
May 7	1:55 p.m.	95.7
June 18	11:05 a.m.	94.9
20	11:15 a.m.	95.0
22	9:50 a.m.	95.8
24	1:55 p.m.	94.5
July 3	1:35 p.m.	94.1
7	2:00 p.m.	94.8
8	9:20 a.m.	94.1
20	2:15 p.m.	95.5
22	1:00 a.m.	95.6
Aug. 10	1:50 p.m.	97.4
21	10:15 a.m.	96.7
Sept. 5	3:00 p.m.	94.1
8	1:20 p.m.	94.0
12	2:30 p.m.	93.6
17	4:15 p.m.	93.5
Well 18a		
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing 0.67 foot above ground. Nearest pumping well is in sec.17, 1 mile east.		
Jan. 22	-- --	94.1
May 7	2:20 p.m.	94.1
June 18	11:35 a.m.	94.1
20	11:45 a.m.	94.9
22	9:25 a.m.	96.4
24	1:30 p.m.	94.5
July 3	10:50 a.m.	91.3
7	2:30 p.m.	93.9
8	8:55 a.m.	93.8
20	2:30 p.m.	94.9
22	11:55 a.m.	95.5
Aug. 10	3:05 p.m.	95.1
21	10:40 a.m.	96.4
Sept. 5	3:30 p.m.	94.0
Well 18a--Continued		
Sept. 8	1:25 p.m.	92.2
12	3:30 p.m.	96.2
17	4:30 p.m.	94.0
Well 19		
City of Big Spring. 2½ miles south of Big Spring. Measuring point is top of 6 inch casing, 0.25 foot above ground. Nearest pumping well is 4,100 feet east.		
Jan. 23	-- --	92.5
May 7	1:20 p.m.	110.5
June 18	1:30 p.m.	110.1
20	1:45 p.m.	111.4
22	8:25 a.m.	110.5
24	1:00 p.m.	110.6
July 3	2:20 p.m.	109.2
7	3:30 p.m.	109.5
8	8:30 a.m.	109.4
9	1:30 p.m.	109.9
20	11:45 a.m.	110.2
22	1:35 p.m.	112.2
Aug. 21	11:00 a.m.	112.3
Sept. 5	2:15 p.m.	109.7
8	1:08 p.m.	109.8
12	1:30 p.m.	109.2
Well 19a		
City of Big Spring. 2¼ miles south of Big Spring. Measuring point is top of 6-5/8 inch casing, 1.8 feet above ground. Nearest pumping well is 4,000 feet east.		
Jan. 22	-- --	110.1
May 7	1:00 p.m.	110.6
June 18	1:00 p.m.	110.7
20	1:10 p.m.	111.2
22	8:00 a.m.	110.9
24	12:10 p.m.	110.8
July 3	1:55 p.m.	109.1
7	3:30 p.m.	109.9
8	8:00 a.m.	109.6
20	11:45 a.m.	110.6
22	1:20 p.m.	112.3
Aug. 10	2:53 p.m.	112.8
21	11:25 a.m.	112.5
Sept. 5	2:45 p.m.	110.3
8	1:05 p.m.	109.8
12	1:00 p.m.	109.8

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth to water (feet)
Well 20		
City of Big Spring. 2¼ miles south of Big Spring. Measuring point is top of 8 inch casing, 0.83 foot above ground. Nearest pumping well is 4,300 feet east.		
Jan. 23	-- --	142.2
May 7	1:40 p.m.	142.2
July 20	12:01 p.m.	142.7
22	2:00 p.m.	145.4
Aug. 21	11:50 a.m.	145.0
Sept. 5	3:00 p.m.	143.0
Well 21		
City of Big Spring. 2 miles southeast of Big Spring. Measuring point is top of 7 inch casing, 1.75 feet above ground. Nearest pumping well is 3,860 feet southeast.		
Jan. 28	9:00 a.m.	99.6
May 7	11:50 a.m.	100.9
July 20	11:30 a.m.	101.2
22	11:35 a.m.	102.3
Aug. 21	1:00 p.m.	102.9
Sept. 5	1:30 p.m.	100.0
1937		
Jan. 24	3:20 p.m.	100.1
Well 21a		
City of Big Spring. 2 miles southeast of Big Spring. Measuring point is top of 6-5/8 inch casing 1.08 feet above ground. Nearest pumping well is 3,900 feet southeast.		
Jan. 28	-- --	100.4
May 7	11:35 a.m.	102.0
June 20	2:30 p.m.	102.2
22	9:05 a.m.	102.5
July 3	2:50 p.m.	101.7
9	1:00 p.m.	101.2
20	11:15 a.m.	102.8
Aug. 21	1:20 p.m.	103.8
Sept. 5	1:15 p.m.	101.7
8	2:05 p.m.	101.3
12	11:40 p.m.	101.3
Well 29		
City of Big Spring. 9 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.79 foot above ground. Nearest pumping well is 250 feet east.		
Feb. 7	-- --	218.5
May 5	1:45 p.m.	218.1
8	11:10 a.m.	221.7
8	3:50 p.m.	220.1
June 18	4:50 p.m.	220.3
Well 30		
City of Big Spring. 2¼ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.25 foot above ground. Nearest pumping well is 100 feet north.		
Feb. 7	9:00 a.m.	217.5
May 5	10:00 a.m.	218.6
8	10:55 a.m.	218.5
June 16	8:00 a.m.	220.8
17	1:25 p.m.	220.7
19	2:00 p.m.	220.2
23	2:10 p.m.	220.9
24	4:10 p.m.	219.1
July 7	9:15 a.m.	220.4
9	11:30 a.m.	219.9
10	2:10 p.m.	219.8
20	10:00 a.m.	221.3
21	3:45 p.m.	223.4
29	2:42 p.m.	227.2
Aug. 10	9:55 a.m.	225.4
21	1:36 p.m.	223.8
Sept. 5	9:00 a.m.	221.6
12	9:20 a.m.	224.6
1937		
Jan. 24	4:00 p.m.	220.4
Well 31		
City of Big Spring. 2½ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.5 foot above ground. Nearest pumping well is 500 feet north.		
Feb. 6	-- --	
May 5	11:15 a.m.	221.7
8	10:40 a.m.	222.3
29	8:25 a.m.	224.9
June 16	8:20 a.m.	222.7
17	1:50 p.m.	222.3
19	2:05 p.m.	221.1
23	2:35 p.m.	223.0
24	3:50 p.m.	221.5
July 7	8:50 a.m.	222.6
9	10:00 a.m.	223.6
10	1:00 p.m.	223.8
20	11:00 a.m.	225.2
Well 32		
City of Big Spring. 2½ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.75 foot above ground. Nearest pumping well is 950 feet east.		
Feb. 6	-- --	225.4
May 5	11:45 a.m.	225.1
8	10:25 a.m.	226.5
29	9:00 a.m.	228.7
June 16	8:45 a.m.	227.1
17	2:30 p.m.	226.3
18	4:00 p.m.	226.1
19	1:30 p.m.	226.8
23	3:00 p.m.	226.0
24	3:30 p.m.	226.2
July 7	8:30 a.m.	226.8
9	10:30 a.m.	225.1
20	10:15 a.m.	227.6
21	3:25 p.m.	230.4
29	3:01 p.m.	231.9
Aug. 10	10:10 a.m.	228.3
21	1:50 p.m.	230.0
Sept. 5	8:45 a.m.	227.1
8	10:40 a.m.	227.0
12	9:07 a.m.	229.4
Well 33		
City of Big Spring. 2½ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.75 foot above ground. Nearest pumping well is 1,500 feet east.		
Feb. 6	-- --	230.7
May 5	8:00 a.m.	230.2
8	10:10 a.m.	230.9

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 33--Continued		
May 29	9:30 a.m.	230.6
June 16	9:10 a.m.	231.9
17	2:55 p.m.	231.5
18	4:30 p.m.	230.8
19	1:00 p.m.	231.3
23	3:40 p.m.	230.0
24	3:10 p.m.	231.7
July 7	8:00 a.m.	230.9
9	11:00 a.m.	230.9
20	10:30 a.m.	238.7
21	3:00 p.m.	235.2
Aug. 21	2:15 p.m.	235.0
Sept. 5	8:30 a.m.	232.1
12	9:00 a.m.	223.7
Well 34		
City of Big Spring. 2¾ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.67 foot above ground. Nearest pumping well is well 34a, 10 feet north.		
Feb. 5	-- --	206.1
May 6	9:15 a.m.	208.7
8	1:00 p.m.	209.3
29	10:20 a.m.	210.0
June 16	9:25 a.m.	210.3
18	1:50 p.m.	210.1
19	3:00 p.m.	210.3
24	11:15 a.m.	209.8
24	5:25 p.m.	210.1
July 10	2:25 p.m.	211.7
20	9:45 a.m.	212.0
29	1:45 p.m.	217.5
Well 34a		
City of Big Spring. 2¼ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 2.5 feet above ground. Nearest pumping well is 350 feet west.		
Apr. 3	-- --	215.4
May 6	10:15 a.m.	209.8
8	1:30 p.m.	211.5
Well 37		
City of Big Spring. 2⅔ miles southeast of Big Spring. Measuring point is ground surface. Nearest pumping well is 250 feet west.		
May 6	8:45 a.m.	213.4
29	10:45 a.m.	224.1
June 16	9:45 a.m.	223.2
18	3:20 p.m.	224.2
24	4:30 p.m.	222.5
July 7	9:35 a.m.	223.1
9	9:15 a.m.	222.6
10	1:25 a.m.	223.0
29	2:26 p.m.	229.1
Aug. 10	9:40 a.m.	228.6
21	2:28 p.m.	227.4
Sept. 5	9:15 a.m.	224.6
8	10:57 a.m.	224.1
12	9:30 a.m.	227.0
Well 38		
City of Big Spring. 2¼ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.58 foot above ground. Nearest pumping well is 275 feet north.		
Feb. 2	-- --	215.2
May 6	8:20 a.m.	214.1
8	11:55 a.m.	216.0
29	11:40 a.m.	217.7
June 16	10:05 a.m.	219.5
18	2:20 p.m.	210.1
24	10:55 a.m.	218.8
24	5:10 a.m.	218.6
July 10	2:50 p.m.	219.3
20	9:30 a.m.	219.8
21	2:25 p.m.	223.1
29	2:00 p.m.	225.1
Aug. 10	9:12 a.m.	223.8
Sept. 5	9:45 a.m.	219.8
8	11:10 a.m.	220.0
Well 40		
City of Big Spring. 2¼ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 2.5 feet above ground. Nearest pumping well is well 40a, 6 feet east.		
May 5	4:10 p.m.	222.4
8	11:35 a.m.	221.3
29	1:00 p.m.	232.4
June 16	10:30 a.m.	229.2
17	1:00 p.m.	228.2
18	2:55 p.m.	229.6
19	3:40 p.m.	229.8
Well 40--Continued		
June 24	11:45 a.m.	228.6
24	4:45 p.m.	228.7
July 9	8:35 a.m.	229.9
10	1:00 p.m.	230.1
20	9:00 a.m.	229.8
21	2:40 p.m.	227.7
29	2:17 p.m.	229.8
Aug. 10	9:30 a.m.	231.1
21	2:55 p.m.	230.0
Sept. 5	9:30 a.m.	232.0
8	11:05 a.m.	230.8
12	9:40 a.m.	234.7
1937		
Jan. 24	5:00 p.m.	226.5
Well 40b		
City of Big Spring. 3½ miles southeast of Big Spring. Measuring point is ground surface. Nearest pumping well is well 40a, mile north.		
Dec. 10	9:00 a.m.	214.0
1937		
Jan. 24	4:30 p.m.	214.0
Well 41		
City of Big Spring. 2¼ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.12 foot above ground. Nearest pumping well is 275 feet north.		
Feb. 5	9:00 a.m.	214.8
May 6	10:40 a.m.	201.0
8	1:55 p.m.	216.6
July 17	4:30 p.m.	219.6
21	2:10 p.m.	222.8
Sept. 5	10:45 a.m.	217.5
12	10.00 a.m.	222.7
Jan. 24	4:15 p.m.	217.9
Well 45		
City of Big Spring. 2-3/4 miles southeast of Big Spring. Measuring point is ground surface. Nearest pumping well is 300 feet north.		
Apr. 4	-- --	206.0
May 6	11:05 a.m.	206.2
8	2:35 p.m.	216.8

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 45--Continued		
June 16	10:50 a.m.	221.4
July 17	4:00 p.m.	222.1
21	1:40 p.m.	226.1
Sept. 5	11:00 a.m.	223.3
Well 50		
City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12 inch casing, 1 foot above ground. Nearest pumping well is 1,000 feet south.		
Feb. 10	-- --	109.2
20	4:00 p.m.	121.3
May 7	8:25 a.m.	117.1
June 17	11:55 a.m.	114.4
19	11:50 a.m.	114.0
23	1:20 p.m.	115.0
25	12:10 p.m.	115.8
July 8	3:40 p.m.	105.8
10	11:20 a.m.	107.3
17	2:10 p.m.	118.3
21	12:01 p.m.	120.3
Well 51		
City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12½ inch casing, 0.67 foot above ground. Nearest pumping well is 15 feet west.		
Feb. 10	9:00 a.m.	126.1
May 7	8:00 a.m.	131.3
June 17	11:20 a.m.	128.9
19	11:20 a.m.	129.1
23	11:15 a.m.	129.1
25	11:50 a.m.	129.1
July 8	4:05 p.m.	111.9
10	11:45 a.m.	111.7
16	6:00 a.m.	113.4
16	8:00 p.m.	131.1
17	6:00 a.m.	113.1
17	1:50 p.m.	132.3
17	8:00 p.m.	131.9
18	6:00 a.m.	112.1
18	8:00 p.m.	113.9
19	6:00 a.m.	113.8
19	8:00 a.m.	131.6
20	6:00 a.m.	113.8
20	8:00 p.m.	131.6
21	6:00 a.m.	114.6
Well 51--Continued		
July 21	11:35 a.m.	132.0
21	7:30 p.m.	131.6
22	6:00 a.m.	114.2
22	5:00 p.m.	
23	6:00 a.m.	113.2
23	6:00 a.m.	126.7
24	6:00 a.m.	112.3
24	7:20 p.m.	131.3
25	6:00 a.m.	113.4
26	6:30 a.m.	112.6
26	6:15 p.m.	130.6
27	6:00 a.m.	112.9
27	8:00 p.m.	131.8
28	5:45 a.m.	113.8
28	9:30 p.m.	132.4
29	5:45 a.m.	115.0
29	7:40 p.m.	133.2
30	5:50 a.m.	115.4
30	6:00 p.m.	128.0
31	4:20 a.m.	114.4
31	6:15 p.m.	133.0
Aug. 1	5:15 a.m.	114.7
1	7:00 p.m.	133.1
2	6:00 a.m.	114.7
2	4:30 p.m.	132.6
3	5:45 a.m.	113.6
3	8:45 p.m.	132.1
4	5:45 a.m.	114.1
4	9:00 p.m.	134.2
5	5:45 a.m.	115.6
5	8:45 p.m.	134.6
6	5:30 a.m.	115.8
6	9:15 p.m.	134.1
7	5:45 a.m.	116.2
7	8:45 p.m.	135.0
8	5:45 a.m.	116.0
8	8:00 p.m.	134.7
9	6:00 a.m.	116.0
9	5:00 p.m.	133.4
10	5:45 a.m.	114.9
10	7:00 p.m.	128.1
11	5:45 a.m.	114.6
11	7:00 p.m.	133.1
12	6:00 a.m.	114.1
12	8:00 p.m.	132.0
13	6:00 a.m.	115.7
13	9:00 p.m.	134.1
14	6:00 a.m.	116.1
14	9:15 p.m.	135.5
15	5:45 a.m.	116.9
15	7:00 p.m.	134.8
16	6:00 a.m.	116.1
Well 51--Continued		
Aug. 16	9:15 p.m.	135.3
17	6:00 a.m.	116.6
17	8:15 p.m.	135.4
18	6:00 a.m.	116.7
18	7:00 p.m.	135.0
19	5:45 a.m.	117.1
19	8:00 p.m.	135.9
20	5:45 a.m.	116.1
20	7:00 p.m.	135.7
21	5:45 a.m.	117.1
21	7:00 p.m.	135.5
22	5:45 a.m.	116.1
22	8:00 p.m.	135.8
23	6:00 a.m.	117.0
23	7:00 p.m.	135.4
24	6:15 a.m.	116.6
24	6:00 a.m.	128.6
25	6:00 a.m.	116.3
25	8:30 p.m.	128.3
26	6:15 a.m.	116.9
26	8:00 p.m.	135.1
27	6:00 a.m.	116.9
27	8:15 p.m.	135.1
28	5:45 a.m.	116.6
28	10:00 p.m.	137.9
29	6:00 a.m.	117.8
29	6:45 p.m.	137.5
30	6:00 a.m.	116.1
30	1:15 p.m.	133.7
31	6:00 a.m.	114.1
31	3:15 p.m.	133.2
Sept. 1	6:00 a.m.	114.4
1	7:30 p.m.	133.7
2	6:00 a.m.	115.8
2	7:00 p.m.	134.1
3	6:15 a.m.	116.1
3	5:00 p.m.	130.1
4	6:00 a.m.	115.3
4	6:30 p.m.	133.4
5	6:30 a.m.	115.1
5	6:15 p.m.	132.1
6	7:00 a.m.	114.1
6	7:00 p.m.	134.4
7	6:20 a.m.	115.5
8	6:30 a.m.	114.8
8	10:14 a.m.	132.3
8	7:00 p.m.	133.1
9	6:30 a.m.	115.5
11	6:30 a.m.	111.7
11	7:15 p.m.	132.6
12	6:15 a.m.	114.0
12	7:00 p.m.	133.9

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a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 51--Continued		
Sept. 13	6:00 a.m.	115.0
14	6:30 a.m.	115.4
15	6:30 a.m.	115.7
15	6:15 p.m.	134.0
16	6:00 a.m.	115.1
20	7:00 a.m.	115.2
20	3:00 p.m.	127.1
21	6:15 a.m.	113.8
22	7:00 a.m.	112.1
23	7:00 a.m.	112.7
23	7:30 p.m.	127.4
25	6:30 a.m.	110.4
25	6:45 p.m.	128.5
26	8:00 a.m.	110.7
26	5:30 p.m.	130.8
27	8:00 a.m.	110.3
27	6:45 p.m.	128.0
28	8:00 a.m.	109.0
28	6:30 p.m.	128.6
29	7:30 a.m.	109.0
29	6:45 p.m.	126.0
30	8:00 a.m.	108.6
30	5:30 p.m.	127.2
Oct. 1	7:30 a.m.	109.0
2	7:45 a.m.	108.9
3	7:00 a.m.	108.7
4	8:00 a.m.	108.8
5	8:00 a.m.	108.8
6	7:30 a.m.	108.1
7	7:30 a.m.	109.0
8	7:30 a.m.	109.2
9	7:30 a.m.	109.5
10	6:30 a.m.	109.0
11	8:00 a.m.	110.0
12	6:30 a.m.	109.0
14	7:45 a.m.	109.0
15	7:00 a.m.	109.0
16	12:30 p.m.	109.3
17	12:05 p.m.	109.0
18	7:45 a.m.	109.0
19	12:00 a.m.	108.6
20	8:00 a.m.	109.0
21	1:00 p.m.	109.0
22	12:15 p.m.	109.0
23	10:30 a.m.	109.0
24	10:00 a.m.	109.3
25	9:15 a.m.	109.0
26	9:45 a.m.	108.1
27	8:00 a.m.	109.0
28	7:00 a.m.	109.0
29	7:45 a.m.	108.7
30	8:00 a.m.	109.2
Well 51--Continued		
Oct. 30	8:00 a.m.	109.2
31	8:15 a.m.	108.1
Nov. 1	8:15 a.m.	109.3
2	7:45 a.m.	109.0
3	7:30 a.m.	109.7
4	8:15 a.m.	109.0
5	8:30 a.m.	108.1
6	8:00 a.m.	109.8
7	8:00 a.m.	109.8
8	8:15 a.m.	109.1
9	8:15 a.m.	109.0
10	8:00 a.m.	109.0
11	8:00 a.m.	109.2
12	8:00 a.m.	108.0
13	8:00 a.m.	109.9
14	8:00 a.m.	109.6
15	8:00 a.m.	109.6
16	8:00 a.m.	109.3
17	7:45 a.m.	108.9
18	8:00 a.m.	109.7
19	7:30 a.m.	109.9
20	7:30 a.m.	109.4
21	7:00 a.m.	109.4
22	8:00 a.m.	109.3
23	8:15 a.m.	109.3
24	7:45 a.m.	109.0
25	7:30 a.m.	109.3
26	7:30 a.m.	109.6
27	7:30 a.m.	109.0
28	7:00 a.m.	109.0
29	7:30 a.m.	109.0
30	7:30 a.m.	108.1
Dec. 1	8:00 a.m.	108.1
2	8:00 a.m.	108.1
3	7:45 a.m.	108.1
4	8:00 a.m.	108.1
5	8:00 a.m.	108.1
6	8:00 a.m.	108.1
7	8:00 a.m.	108.9
8	8:00 a.m.	109.6
9	8:00 a.m.	109.6
10	8:00 a.m.	110.2
11	7:30 a.m.	109.4
12	7:30 a.m.	109.9
13	8:00 a.m.	110.0
14	7:30 a.m.	109.5
15	8:00 a.m.	109.9
16	7:30 a.m.	109.5
17	7:00 a.m.	109.2
18	7:00 a.m.	109.9
19	7:30 a.m.	109.1
20	8:00 a.m.	109.3
Well 51--Continued		
Dec. 21	7:30 a.m.	109.2
22	7:45 a.m.	109.4
23	7:45 a.m.	109.8
24	7:30 a.m.	102.8
25	8:00 a.m.	109.0
26	6:00 a.m.	109.0
29	7:45 a.m.	108.4
30	7:30 a.m.	109.0
31	7:45 a.m.	109.0
1937		
Jan. 1	8:00 a.m.	109.0
2	7:30 a.m.	109.2
3	8:00 a.m.	108.1
4	8:00 a.m.	109.0
5	7:45 a.m.	108.1
6	7:30 a.m.	108.8
7	7:30 a.m.	108.1
12	8:00 a.m.	110.0
13	8:00 a.m.	109.1
14	7:45 a.m.	109.6
15	7:30 a.m.	109.7
16	7:30 a.m.	109.1
17	8:00 a.m.	109.1

Well 55

City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 12 inch casing, 1 foot above ground. Nearest pumping well is 250 feet northwest.

Feb. 12	-- --	143.5
May 6	2:55 p.m.	159.1
June 17	8:00 a.m.	143.6
19	8:50 a.m.	144.8
23	10:45 a.m.	149.4
25	10:00 a.m.	169.8
July 8	2:45 p.m.	128.2
10	10:25 a.m.	131.1
17	1:20 p.m.	190.1
21	10:25 a.m.	165.3

Well 56

City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 1 foot above ground. Nearest pumping well is 400 feet north.

Feb. 3	4:00 p.m.	135.2
20	-- --	162.8
May 6	2:30 p.m.	159.1

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a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 56--Continued		
May 7	10:15 a.m.	151.7
June 17	9:20 a.m.	145.5
19	10:50 a.m.	138.7
25	11:30 a.m.	152.4
July 8	3:15 p.m.	128.5
10	10:50 a.m.	131.0
16	6:00 a.m.	147.3
16	8:00 p.m.	162.9
17	6:00 a.m.	146.4
17	1:00 p.m.	156.8
17	8:00 p.m.	162.0
18	6:00 a.m.	144.5
18	8:00 p.m.	161.5
19	6:00 a.m.	146.5
19	8:00 p.m.	163.1
20	6:00 a.m.	147.4
20	8:00 p.m.	163.6
21	6:00 a.m.	150.3
21	11:15 a.m.	158.0
21	7:30 p.m.	164.3
22	6:00 a.m.	149.5
22	5:00 p.m.	162.5
23	6:00 a.m.	143.2
23	6:00 p.m.	153.1
24	6:00 a.m.	137.9
24	7:00 p.m.	158.4
25	6:00 a.m.	142.6
25	6:15 p.m.	158.8
26	6:30 a.m.	138.4
26	6:15 p.m.	155.8
27	6:00 a.m.	140.4
27	8:00 p.m.	160.0
28	6:00 a.m.	144.3
28	9:50 p.m.	163.0
29	6:00 a.m.	151.8
29	7:40 p.m.	165.1
30	6:00 a.m.	154.2
30	6:00 p.m.	164.8
31	4:30 a.m.	150.2
31	6:15 p.m.	164.2
Aug. 1	5:15 a.m.	154.1
1	1:00 p.m.	163.2
2	6:00 a.m.	147.8
2	4:30 p.m.	160.4
3	5:45 a.m.	142.0
3	8:45 p.m.	161.9
4	5:45 a.m.	148.1
4	9:00 p.m.	165.1
5	5:45 a.m.	154.4
5	8:45 p.m.	166.5
6	5:30 a.m.	155.3
6	9:15 p.m.	168.4
Well 56--Continued		
Aug. 7	5:45 a.m.	156.9
7	8:45 p.m.	162.6
8	5:45 a.m.	155.4
8	8:00 p.m.	167.0
9	6:00 a.m.	153.1
9	5:00 p.m.	163.9
10	5:45 a.m.	146.6
10	7:00 p.m.	160.8
11	5:45 a.m.	146.1
11	7:00 p.m.	162.4
12	6:00 a.m.	147.5
12	8:00 p.m.	164.4
13	6:00 a.m.	151.7
13	9:00 p.m.	166.1
14	6:00 a.m.	154.2
14	9:15 p.m.	167.9
15	5:45 a.m.	156.8
15	7:00 p.m.	167.2
16	6:00 a.m.	156.6
16	9:15 p.m.	166.2
17	6:00 a.m.	154.1
17	8:15 p.m.	166.1
18	6:00 a.m.	155.0
18	9:30 p.m.	167.1
19	5:45 a.m.	156.1
19	8:00 p.m.	167.9
20	5:45 a.m.	155.4
20	9:00 p.m.	162.6
21	5:45 a.m.	156.0
21	7:30 p.m.	167.0
22	5:45 a.m.	154.0
22	8:00 p.m.	166.9
23	6:00 a.m.	154.4
23	7:00 p.m.	166.2
24	6:15 a.m.	151.4
24	6:00 p.m.	165.5
25	6:00 a.m.	150.1
25	8:30 p.m.	165.1
26	6:15 a.m.	153.0
26	8:00 p.m.	167.7
27	6:00 a.m.	154.1
27	8:15 p.m.	163.9
28	6:00 a.m.	151.8
28	9:30 p.m.	167.1
29	6:00 a.m.	157.1
29	6:45 p.m.	165.6
30	6:00 a.m.	151.5
30	1:00 p.m.	158.1
31	6:00 a.m.	140.9
31	3:15 p.m.	155.1
Sept. 1	6:00 a.m.	139.2
1	7:30 p.m.	157.6
Well 56--Continued		
Sept. 2	6:00 a.m.	144.5
2	7:00 p.m.	159.4
3	6:15 a.m.	146.1
3	5:00 p.m.	158.1
4	6:00 a.m.	143.7
4	6:30 p.m.	155.0
5	6:30 a.m.	140.1
5	6:15 p.m.	154.3
6	7:00 a.m.	140.0
6	7:00 p.m.	156.4
7	6:20 a.m.	143.1
8	6:30 a.m.	138.0
8	9:30 a.m.	143.8
8	7:00 p.m.	155.6
9	6:30 a.m.	142.0
11	6:30 a.m.	129.0
11	7:15 p.m.	150.8
12	6:15 a.m.	137.1
12	7:00 p.m.	155.9
13	6:00 a.m.	141.7
14	6:30 a.m.	143.6
14	7:00 p.m.	162.5
15	6:30 a.m.	146.7
15	6:15 p.m.	163.8
16	6:00 a.m.	147.3
17	5:15 a.m.	150.1
17	7:00 p.m.	162.1
18	6:45 a.m.	147.6
18	6:30 p.m.	160.1
19	6:45 a.m.	145.7
19	6:00 p.m.	158.8
20	7:00 a.m.	141.1
20	3:00 p.m.	147.3
21	6:15 a.m.	134.5
22	7:00 a.m.	129.1
23	7:00 a.m.	134.1
23	7:30 p.m.	150.0
25	6:30 a.m.	127.1
25	6:45 p.m.	150.6
26	8:00 a.m.	133.8
26	5:30 p.m.	152.8
27	8:00 a.m.	133.2
27	6:45 p.m.	144.0
28	8:00 a.m.	130.4
28	6:30 p.m.	140.2
29	7:30 a.m.	130.1
29	6:45 p.m.	136.2
30	8:00 a.m.	129.6
30	5:30 p.m.	137.3
Oct. 1	7:30 a.m.	129.1
1	7:00 p.m.	135.2
2	7:45 a.m.	128.1

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 56--Continued		
Oct. 3	7:00 a.m.	128.9
4	8:00 a.m.	128.7
5	8:00 a.m.	127.2
6	7:30 a.m.	123.1
7	7:30 a.m.	127.4
8	7:30 a.m.	127.2
9	7:30 a.m.	127.5
10	6:30 a.m.	125.6
11	8:00 a.m.	130.8
12	6:30 a.m.	126.2
13	12:05 p.m.	125.7
14	7:45 a.m.	126.1
15	7:00 a.m.	124.1
16	12:30 a.m.	125.6
17	12:00 a.m.	126.7
18	7:45 a.m.	126.6
19	12:10 p.m.	124.0
20	8:00 a.m.	127.5
21	1:00 p.m.	127.0
22	12:45 p.m.	125.4
23	10:30 a.m.	125.3
24	10:00 a.m.	127.0
25	9:15 a.m.	126.6
26	9:45 a.m.	126.0
27	8:00 a.m.	126.8
28	7:00 a.m.	127.7
29	7:45 a.m.	126.0
30	8:00 a.m.	128.1
31	8:15 a.m.	126.1
Nov. 1	8:15 a.m.	128.6
2	7:45 a.m.	127.3
3	7:30 a.m.	129.7
4	8:15 a.m.	127.1
5	8:30 a.m.	126.1
6	8:00 a.m.	128.8
7	8:00 a.m.	129.1
8	8:15 a.m.	128.1
9	8:15 a.m.	125.1
10	8:00 a.m.	126.5
11	8:00 a.m.	126.1
12	8:00 a.m.	126.4
13	8:00 a.m.	129.9
14	8:00 a.m.	128.4
15	8:00 a.m.	128.0
16	8:00 a.m.	127.5
17	7:45 a.m.	125.6
18	8:00 a.m.	129.5
19	7:30 a.m.	129.9
20	7:30 a.m.	129.2
21	7:00 a.m.	128.0
22	8:00 a.m.	128.7
23	8:15 a.m.	128.0
Well 56--Continued		
Nov. 24	7:45 a.m.	127.5
25	7:30 a.m.	128.1
26	7:30 a.m.	129.3
27	7:30 a.m.	127.0
28	7:00 a.m.	127.2
29	7:30 a.m.	125.6
30	7:30 a.m.	126.8
Dec. 1	8:00 a.m.	126.8
2	8:00 a.m.	126.5
3	7:45 a.m.	126.1
4	8:00 a.m.	126.1
5	8:00 a.m.	126.1
6	8:00 a.m.	126.6
7	8:00 a.m.	126.8
8	8:00 a.m.	130.0
9	8:00 a.m.	129.1
10	8:00 a.m.	131.4
11	7:30 a.m.	128.3
12	7:30 a.m.	130.3
13	8:00 a.m.	129.7
14	7:30 a.m.	127.5
15	8:00 a.m.	129.6
16	7:30 a.m.	128.9
17	7:00 a.m.	128.2
18	7:00 a.m.	130.0
19	7:30 a.m.	130.6
20	8:00 a.m.	127.1
21	7:30 a.m.	128.0
22	7:45 a.m.	129.2
23	7:45 a.m.	129.9
24	7:30 a.m.	129.1
25	8:00 a.m.	127.1
29	7:45 a.m.	127.1
30	7:30 a.m.	128.0
31	7:45 a.m.	127.1
1937		
Jan. 1	8:00 a.m.	127.2
2	7:30 a.m.	128.6
3	8:00 a.m.	126.1
4	8:00 a.m.	128.2
5	7:45 a.m.	126.1
6	7:30 a.m.	126.5
7	7:30 a.m.	127.1
12	8:00 a.m.	131.9
13	8:00 a.m.	128.1
14	7:45 a.m.	130.3
15	7:30 a.m.	131.1
16	7:30 a.m.	130.1
17	8:00 a.m.	130.7
24	9:00 a.m.	133.0
Well 60		
City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 12 inch casing, 1 foot above ground. Nearest pumping well is 500 feet northeast.		
Feb. 12	-- --	133.1
20	4:00 p.m.	150.6
May 6	1:40 p.m.	155.2
29	1:25 p.m.	140.0
June 17	9:50 a.m.	154.7
19	9:15 a.m.	153.1
23	9:00 a.m.	155.1
25	8:55 a.m.	154.5
July 8	1:00 p.m.	139.8
10	8:30 a.m.	141.5
17	11:10 a.m.	157.7
21	9:35 a.m.	159.3
Sept. 8	9:30 a.m.	159.7
Well 61		
City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 12⅓ inch casing, 1 foot above ground. Nearest pumping well is 600 feet north.		
Feb. 13	-- --	131.4
May 6	1:10 p.m.	150.1
7	11:20 a.m.	137.1
29	1:45 p.m.	139.6
June 17	10:25 a.m.	150.2
19	9:45 a.m.	149.1
23	8:30 a.m.	147.6
25	8:15 a.m.	149.7
July 8	11:45 a.m.	138.7
10	8:00 a.m.	140.1
16	6:00 a.m.	140.1
16	8:00 p.m.	153.1
17	6:00 a.m.	140.1
17	11:00 a.m.	153.9
17	8:00 p.m.	153.3
18	6:00 a.m.	140.1
19	6:00 p.m.	141.4
20	6:00 a.m.	141.1
21	6:00 a.m.	141.9
21	9:00 a.m.	152.2
21	8:00 p.m.	154.4
23	6:00 p.m.	141.3
23	6:00 p.m.	152.3
24	6:00 a.m.	141.0
24	7:30 p.m.	151.6

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a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 61--Continued		
July 25	6:00 a.m.	141.6
26	6:30 a.m.	141.0
26	7:00 p.m.	153.0
27	6:00 a.m.	141.5
27	8:00 p.m.	154.0
28	6:00 a.m.	141.9
28	9:50 p.m.	155.3
29	6:00 a.m.	142.2
29	7:40 p.m.	155.5
30	6:00 a.m.	142.4
30	6:00 p.m.	150.8
Aug. 1	5:30 a.m.	142.9
1	7:00 p.m.	155.3
2	6:00 a.m.	142.6
2	4:30 p.m.	155.0
3	5:45 a.m.	142.3
3	8:45 p.m.	154.9
4	5:15 a.m.	142.1
4	9:00 p.m.	155.9
5	5:45 a.m.	143.5
5	8:45 p.m.	156.4
6	5:30 a.m.	143.5
6	9:15 p.m.	156.8
7	5:45 a.m.	143.8
7	8:45 p.m.	156.0
8	5:45 a.m.	144.0
8	8:00 p.m.	156.2
9	6:00 a.m.	144.0
9	5:00 p.m.	155.2
10	5:45 a.m.	143.8
10	7:00 p.m.	155.4
11	5:45 a.m.	143.8
11	7:00 p.m.	155.3
12	6:00 a.m.	143.9
13	6:00 a.m.	145.1
14	6:00 a.m.	144.0
15	5:45 a.m.	144.6
15	7:00 p.m.	156.1
16	6:00 a.m.	145.0
16	9:15 p.m.	157.0
17	6:00 a.m.	145.0
17	8:15 p.m.	157.3
18	6:00 a.m.	145.2
18	7:00 p.m.	156.9
19	5:15 a.m.	145.1
19	8:00 p.m.	157.1
20	5:45 a.m.	145.1
20	7:00 p.m.	157.1
21	5:45 a.m.	145.5
21	7:00 p.m.	157.5
22	5:45 a.m.	145.5
22	7:30 p.m.	157.4
Aug. 23	6:00 a.m.	145.6
24	6:15 a.m.	145.2
24	6:00 p.m.	157.7
25	6:00 a.m.	145.3
Sept. 8	9:15 a.m.	155.2
Well 62		
City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12½ inch casing, 1.17 feet above ground. Nearest pumping well is 900 feet east.		
Feb. 19	-- --	144.1
20	2:40 p.m.	143.3
21	4:00 p.m.	168.5
May 6	2:05 p.m.	152.9
29	2:20 p.m.	152.6
June 17	10:50 a.m.	155.2
19	10:15 a.m.	154.9
23	9:25 a.m.	154.7
25	9:35 a.m.	154.5
July 8	1:25 p.m.	153.9
10	8:55 a.m.	155.0
17	11:15 a.m.	157.6
21	10.00 a.m.	159.5
Sept. 8	9:45 a.m.	162.0
Well 64		
City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 12½ inch casing, 1.71 feet above ground. Nearest pumping well is 150 feet west.		
Feb. 11	-- --	129.1
21	4:00 p.m.	153.2
May 6	3:50 p.m.	133.1
June 17	8:50 a.m.	128.6
19	8:30 a.m.	127.8
23	10:15 a.m.	129.1
25	11:00 a.m.	137.8
July 8	2:15 p.m.	118.4
10	9:55 a.m.	119.9
17	1:30 p.m.	143.8
21	11:00 a.m.	138.5
Sept. 8	10:10 a.m.	132.0
Well 65		
City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 8 inch casing in concrete slab, 1.5 feet above ground. Nearest pumping well is 54, 400 feet west.		
1935		
June 24	5:30 a.m.	112.4
24	1:50 p.m.	131.1
25	5:31 a.m.	112.4
25	5:44 p.m.	132.1
26	5:30 a.m.	114.3
26	4:21 p.m.	132.2
27	5:25 a.m.	114.6
27	8:27 p.m.	124.7
28	5:36 a.m.	115.1
28	9:06 p.m.	131.3
29	5:27 a.m.	117.3
July 1	5:25 a.m.	115.2
1	9:00 p.m.	131.8
2	5:32 a.m.	117.4
2	9:01 p.m.	131.8
3	5:19 a.m.	118.0
3	7:09 p.m.	128.8
4	5:08 a.m.	117.5
4	6:58 p.m.	133.7
5	5:25 a.m.	117.5
5	9:50 p.m.	130.8
6	5:10 a.m.	119.1
6	9:40 p.m.	132.1
7	5:13 a.m.	119.6
8	5:10 a.m.	115.9
8	10:36 p.m.	128.9
9	5:13 a.m.	119.5
9	9:49 p.m.	128.9
10	5:23 a.m.	119.9
11	5:14 a.m.	121.7
11	9:35 p.m.	135.2
Aug. 6	5:45 a.m.	116.1
6	10:09 p.m.	135.1
7	5:35 a.m.	120.2
7	10:36 p.m.	135.1
8	5:29 a.m.	121.6
9	5:31 a.m.	119.1
9	6:14 p.m.	136.4
10	5:46 a.m.	139.6
10	6:05 p.m.	140.0
11	5:35 a.m.	124.2
11	7:10 p.m.	141.8
12	5:43 a.m.	122.1
12	9:05 p.m.	143.7
Sept. 1	6:03 a.m.	117.5
2	6:25 a.m.	116.6
3	6:21 a.m.	114.8

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a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 65--Continued		
Sept. 4	6:06 a.m.	117.1
5	6:11 a.m.	115.8
6	6:14 a.m.	114.6
7	5:55 a.m.	115.1
8	6:21 a.m.	115.5
9	6:21 a.m.	116.2
10	5:58 a.m.	115.8
11	5:50 a.m.	116.2
11	4:05 p.m.	137.3
12	6:12 a.m.	116.9
12	4:58 p.m.	138.2
13	6:16 a.m.	117.6
1936		
Feb. 12	11:00 a.m.	130.8
May 1	-- --	124.9
6	3:20 p.m.	137.1
7	10:40 a.m.	124.9
29	3:20 p.m.	121.7
June 17	8:25 a.m.	130.4
19	8:00 a.m.	131.7
23	9:50 a.m.	130.7
25	10:40 a.m.	138.7
July 8	1:50 p.m.	120.7
10	9:35 a.m.	121.1
16	6:00 a.m.	125.1
16	8:00 p.m.	147.9
17	6:00 a.m.	125.1
17	11:30 a.m.	137.2
17	8:00 p.m.	143.0
18	6:00 a.m.	125.6
18	8:00 p.m.	138.1
19	6:00 a.m.	126.5
19	8:00 p.m.	146.9
20	6:00 a.m.	126.1
20	8:00 p.m.	145.7
21	6:00 a.m.	127.3
21	10:40 a.m.	141.4
21	7:30 p.m.	146.0
22	6:00 a.m.	127.0
22	5:00 a.m.	140.1
23	6:00 a.m.	125.6
23	5:00 p.m.	142.9
24	6:00 a.m.	124.1
24	7:00 p.m.	145.6
25	6:00 a.m.	125.6
25	6:15 p.m.	136.6
26	6:30 a.m.	124.3
26	6:15 p.m.	138.0
27	6:00 a.m.	125.0
27	8:00 p.m.	139.2
28	6:00 a.m.	126.1
28	9:50 p.m.	147.1

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 65--Continued		
July 29	6:00 a.m.	127.9
29	7:40 p.m.	148.4
30	6:00 a.m.	128.4
30	6:00 p.m.	145.6
31	4:30 a.m.	127.7
31	6:15 p.m.	140.6
Aug. 1	5:15 a.m.	127.4
1	7:00 p.m.	141.1
2	6:00 a.m.	127.3
2	4:30 p.m.	140.5
3	5:45 a.m.	125.1
3	8:45 p.m.	140.2
4	5:45 a.m.	127.6
4	9:00 p.m.	148.8
5	5:45 a.m.	128.7
5	8:45 p.m.	149.3
6	5:30 a.m.	128.1
6	9:15 p.m.	150.0
7	5:45 a.m.	129.4
7	8:45 p.m.	143.3
8	5:45 a.m.	129.5
8	8:00 p.m.	148.3
9	6:00 a.m.	129.1
9	5:00 p.m.	140.1
10	5:45 a.m.	127.8
10	7:00 p.m.	147.0
11	5:45 a.m.	127.6
11	7:00 p.m.	143.5
12	6:00 a.m.	127.8
12	8:00 p.m.	149.5
13	6:00 a.m.	128.1
13	9:00 p.m.	149.6
14	6:00 a.m.	129.3
14	9:15 p.m.	150.0
15	5:45 a.m.	130.0
15	7:00 p.m.	149.8
16	6:00 a.m.	130.0
16	9:15 p.m.	146.8
17	6:00 a.m.	130.0
17	8:15 p.m.	148.1
18	6:00 a.m.	130.2
18	9:30 p.m.	144.0
19	5:45 a.m.	130.6
19	8:00 p.m.	149.0
20	5:45 a.m.	130.2
20	9:00 p.m.	143.0
21	5:45 a.m.	130.6
21	7:30 p.m.	149.3
22	5:45 a.m.	130.5
22	8:00 p.m.	150.2
23	6:00 a.m.	130.4
23	7:00 p.m.	143.1

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 65--Continued		
Aug. 24	6:15 a.m.	129.1
24	6:00 p.m.	149.9
25	6:00 a.m.	129.5
25	8:30 p.m.	145.3
26	8:00 p.m.	150.1
27	6:00 a.m.	130.8
27	8:15 p.m.	150.5
28	6:00 a.m.	130.2
28	9:30 p.m.	145.1
29	6:00 a.m.	130.1
30	6:00 a.m.	129.6
30	1:00 p.m.	140.1
31	6:00 a.m.	126.1
31	3:15 p.m.	138.1
Sept. 1	6:00 a.m.	126.5
1	7:30 p.m.	140.0
2	6:00 a.m.	127.1
2	7:00 a.m.	140.6
3	6:15 a.m.	128.4
4	6:00 a.m.	127.4
4	6:30 p.m.	139.6
5	6:30 a.m.	122.7
5	6:15 p.m.	139.0
6	7:00 a.m.	127.3
6	7:00 p.m.	140.0
7	6:20 a.m.	128.1
8	6:30 a.m.	126.7
8	10:05 a.m.	136.0
8	7:00 p.m.	139.8
9	6:30 a.m.	127.1
11	6:30 a.m.	123.9
11	7:15 p.m.	137.9
12	6:15 a.m.	126.6
12	7:00 p.m.	139.5
13	6:00 a.m.	127.5
14	6:30 a.m.	127.9
15	6:30 a.m.	129.0
15	6:15 p.m.	148.1
16	6:00 a.m.	129.2
20	7:00 a.m.	128.0
20	3:00 p.m.	136.6
21	6:15 a.m.	126.0
22	7:00 a.m.	124.5
23	7:00 a.m.	125.6
23	7:30 p.m.	135.6
25	6:30 a.m.	123.0
25	6:45 p.m.	131.1
26	8:00 a.m.	124.1
26	5:30 p.m.	133.6
27	8:00 a.m.	124.9
27	6:45 p.m.	132.1
28	8:00 a.m.	123.9

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 65--Continued		
Sept. 28	6:30 p.m.	139.2
29	7:30 a.m.	134.0
29	6:45 p.m.	138.4
30	8:00 a.m.	135.6
30	5:30 p.m.	139.0
Oct. 1	7:30 a.m.	133.8
2	7:45 a.m.	133.4
3	7:00 a.m.	133.2
4	8:00 a.m.	133.3
5	8:00 a.m.	132.8
6	7:30 a.m.	132.7
7	7:30 a.m.	132.1
8	7:30 a.m.	132.7
9	7:30 a.m.	132.9
10	6:30 a.m.	131.1
11	8:00 a.m.	133.8
12	6:30 a.m.	132.1
13	12:05 p.m.	131.1
14	7:45 a.m.	132.0
15	7:00 a.m.	131.6
16	12:30 p.m.	132.1
17	12:00 a.m.	132.0
18	7:45 a.m.	131.1
19	12:10 p.m.	130.1
20	8:00 a.m.	132.2
21	1:00 p.m.	132.1
22	12:45 p.m.	131.7
23	10:30 a.m.	131.4
24	10:00 a.m.	131.1
25	9:15 a.m.	131.7
26	9:45 a.m.	131.6
27	8:00 a.m.	131.8
28	7:00 a.m.	132.0
29	7:45 a.m.	131.4
30	8:00 a.m.	132.3
31	8:15 a.m.	131.6
Nov. 1	8:15 a.m.	132.3
2	7:45 a.m.	131.9
3	7:30 a.m.	132.1
4	8:15 a.m.	131.1
5	8:30 a.m.	131.5
6	8:00 a.m.	132.4
7	8:00 a.m.	132.7
9	8:15 a.m.	132.6
9	8:15 a.m.	131.5
10	8:00 a.m.	131.6
11	8:00 a.m.	131.8
12	8:00 a.m.	131.4
13	8:00 a.m.	132.9
14	8:00 a.m.	131.1
15	8:00 a.m.	132.0
16	8:00 a.m.	131.9
Well 65--Continued		
Nov. 17	7:45 a.m.	131.2
18	8:00 a.m.	132.4
19	7:30 a.m.	132.8
20	7:30 a.m.	132.3
21	7:00 a.m.	132.0
22	8:00 a.m.	132.2
23	8:15 a.m.	131.1
24	7:45 a.m.	131.8
25	7:30 a.m.	132.1
26	7:30 a.m.	132.3
27	7:30 a.m.	131.7
28	7:00 a.m.	131.7
29	7:30 a.m.	131.1
30	7:30 a.m.	131.4
Dec. 1	8:00 a.m.	131.5
2	8:00 a.m.	131.3
3	7:45 a.m.	131.5
4	8:00 a.m.	131.6
5	8:00 a.m.	131.4
6	8:00 a.m.	131.4
7	8:00 a.m.	131.4
8	8:00 a.m.	132.4
9	8:00 a.m.	132.1
10	8:00 a.m.	133.0
11	7:30 a.m.	132.0
12	7:30 a.m.	132.7
13	8:00 a.m.	132.5
14	7:30 a.m.	131.1
15	8:00 a.m.	132.6
16	7:30 a.m.	132.0
17	7:00 a.m.	132.1
18	7:00 a.m.	132.8
19	7:30 a.m.	132.1
20	8:00 a.m.	131.1
21	7:30 a.m.	132.0
22	7:45 a.m.	132.4
23	7:45 a.m.	132.8
24	7:30 a.m.	132.5
25	8:00 a.m.	131.7
26	6:00 a.m.	131.6
29	7:45 a.m.	130.6
30	7:30 a.m.	131.7
31	7:45 a.m.	131.7
1937		
Jan. 1	8:00 a.m.	131.4
2	7:30 a.m.	131.1
3	8:00 a.m.	131.6
4	8:00 a.m.	131.8
5	7:45 a.m.	131.4
6	7:30 a.m.	131.1
7	7:30 a.m.	131.7
12	8:00 a.m.	132.8
Well 65--Continued		
Jan. 13	8:00 a.m.	131.1
14	7:45 a.m.	132.5
15	7:30 a.m.	132.9
16	7:30 a.m.	132.8
17	8:00 a.m.	132.7
24	9:00 a.m.	133.4

Well 67

City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 8¼ inch casing, 2.17 feet above ground. Nearest pumping well is 700 feet west.

Feb. 12	-- --	142.2
20	4:00 p.m.	146.0

Well 68

City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12½ inch casing, 1.5 feet above ground. Nearest pumping well is 1,350 feet west.

Feb. 17	-- --	71.2
May 7	8:45 a.m.	73.4
July 17	2:30 p.m.	74.5
21	12:30 p.m.	75.0

Well 69

City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12½ inch casing, 1.17 feet above ground. Nearest pumping well is 1,650 feet southwest.

Feb. 17	-- --	62.9
May 7	9:20 a.m.	64.7
July 17	3:00 p.m.	64.7
21	12:45 p.m.	64.6

Well 70

City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.

Feb. 17	-- --	57.9

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)
Well 70--Continued		
May 7	9:45 a.m.	59.1
July 17	3:30 p.m.	59.8
21	1:00 p.m.	59.8
Well 71		
City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 10 inch casing, level with ground. Nearest pumping well 1,600 feet east.		
Feb. 12	9:00 a.m.	57.4
May 6	11:45 a.m.	58.0
29	2:40 p.m.	59.7
Sept. 22	8:30 a.m.	57.6
Well 84		
T. and P. R. R. Co. 1½ miles south of Big Spring. Measuring point is top of concrete block, 1.42 feet above ground. Nearest pumping well is 600 feet south.		
Jan. 21	-- --	179.3
May 5	2:15 p.m.	194.4
8	9:35 a.m.	193.1
12	1:30 p.m.	194.5
June 22	1:00 p.m.	195.2
24	8:00 a.m.	194.4
July 3	4:05 p.m.	194.6
10	5:10 p.m.	155.2
20	4:20 p.m.	200.0
22	9:40 a.m.	203.3
Sept. 17	12:50 p.m.	215.7
Well 85		
T. and P. R. R. Co. 1¼ miles south of Big Spring. Measuring point is top of concrete block, 1.58 feet above ground. Nearest pumping well is 650 feet south.		
Jan. 21	-- --	181.0
May 5	3:30 p.m.	169.4
May 8	9:30 a.m.	169.4
12	11:40 a.m.	169.2
June 22	1:30 p.m.	169.1
Well 86		
T. and P. R. R. Co. 1½ miles south of Big Spring. Measuring point is top of concrete block, 0.75 foot above ground. Nearest pumping well is 600 feet south.		
Jan. 21	-- --	180.1
May 5	4:00 p.m.	193.1
8	9:20 a.m.	193.1
12	11:00 a.m.	193.6
June 22	1:50 p.m.	194.2
24	8:30 a.m.	194.7
July 3	3:15 p.m.	193.5

a/ All water levels measured in 1936 unless otherwise noted.

Table of Drillers' Logs, Howard County, Texas

Driller's log of well 4
1⅛ miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Soil	3	3
Yellow clay and gravel	14	17
Shell rock	13	30
White lime rock	70	100
Yellow lime rock	27	127
White lime with crevice and water	15	142
Blue shale	53	195
Pink sand rock	14	209
Yellow sand	6	215
Yellow sand and gravel	5	220
Yellow sand rock	5	225
Light yellow sand	6	231
Yellow sand	5	236
Pink sand	8	244
Red clay and sand	7	251
Yellow sand and water	21	272
Pink sand and gravel, water	8	280
Red bed, clay	3	283

Driller's log of well 6
2 miles south of Big Spring.

Boulders	6	6
Sandstone	24	30
Yellow sandstone	5	35
White sandstone	15	50
Red rock	10	60
Sand and gravel, water	10	70
Red rock	11	81
Sandstone	26	107
Sand and gravel	21	128
Sandstone	2	130
Red bed	3	133

Driller's log of well 8
2 miles south of Big Spring.

Boulders	6	6
White sandstone	16	22
Yellow sandstone	10	32
White sand	16	48
Sandstone	8	56
Sand and gravel, water	5	61
Red rock	15	76
Sandstone	19	95
Sand and gravel	13	108
Red rock	4	112
Sand and gravel	13	125
Yellow sandstone	2	127
Red bed	3	130

Driller's log of well 9
2 miles south of Big Spring.

Surface soil	14	14
Yellow sand	11	25
Blue shale	7	32
Yellow sandstone	15	47
White sand	10	57
Red sandstone	9	66
White sand	9	75
Sand	5	80
Sandstone	5	85
Red rock	8	93
Sand	10	103
Gravel, water	12	115
Red rock	15	130
Yellow sandstone	6	136
Red bed	4	140

Driller's log of well 9a
2 miles south of Big Spring.

Boulders	12	12
Yellow sandstone	23	35
White sand	7	42
Red rock	8	50
Sand and gravel, water	12	62
Red rock	9	71
Sandstone	27	98
Sand and gravel	22	120
Red bed	6	126

Driller's log of well 10
2 miles south of Big Spring.

Boulders	6	6
Sandstone	21	27
Blue shale	20	47
Yellow sandstone	17	64
White sand	14	78
Sandstone	9	87
Red rock	16	103
Sand	4	107
Sandstone	5	112
Sand and gravel, water	18	130
Red rock	7	137
Sandstone	9	146
Red rock	8	154
Sandstone	8	162
Red bed	2	164

Driller's log of well 14
2 miles south of Big Spring.

Boulders	3	3
Yellow sandstone	17	20
Blue shale	10	30
White sandstone	19	39
Yellow sandstone	12	51
White sand	11	62

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 14--Continued

	Thickness (feet)	Depth (feet)
Sandstone	15	77
Sand and gravel, little water	9	86
Red rock	3	89
Sandstone	5	94
White sand	14	118
Sand and gravel	11	129
Red rock	8	137
Sandstone	6	143
Red bed	3	146

Driller's log of well 15
2 miles south of Big Spring.

Boulders	5	5
Gray sandstone	30	35
Yellow sandstone	10	45
Water sand	10	55
Red rock	12	67
Sand, and gravel, water	13	80
White rock	18	98
Sand	9	107
Sandstone	14	124
Sand and gravel	12	136
Red bed	2	138

Driller's log of well 16
2 miles south of Big Spring.

Surface soil	11	11
White lime	19	30
Blue lime	24	54
Yellow sandstone	13	67
Red rock	16	83
Sand	12	95
Sand and gravel, water	10	105
Sand	15	120
Sandstone	10	130
Red rock	15	145
Sand	10	155
Red bed, clay	5	160

Driller's log of well 17
2 miles south of Big Spring.

Boulders	8	8
Sandstone	22	30
Blue shale	12	42
Yellow sandstone	18	60
White sand	10	70
Red rock	11	81
Sand and gravel, water	11	92
Red rock	11	103
Sand and gravel	17	120
Red rock	9	129
Sand and gravel	7	136
Red rock	9	145
Sandstone	5	150
Red bed	3	153

Driller's log of well 17a
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil	10	10
Sandstone	25	35
White sand	15	50
Red rock	11	61
Sand and gravel, water	12	73
Red rock	8	81
Sandstone	6	87
Sand and gravel, good supply of water	19	106
Sandstone	6	112
Red rock	7	119
Sand and gravel	9	128
Sandstone	3	131
Red bed	3	134

Driller's log of well 34a
2½ miles southeast of Big Spring.

Top soil	1	1
White soil	5	6
Hard rock	5	11
Gray lime	4	15
Bluish yellow limestone	4	19
Gray limestone	6	25
Blue gray limestone	6	31
Yellow clay	4	35
Gray clay	5	40
Clay	5	45
White limestone	20	65
Yellow limestone	5	70
White limestone	5	75
Gray limestone	14	89
Hard blue limestone	35	124
Yellow limestone	8	132
Yellow limestone and clay	13	145
Clay	3	148
Sand	17	165
Yellow sand and clay	5	170
Pink clay	5	175
Yellow sand and clay	10	185
Water sand	30	215
Pink sand	20	235
Red bed	22½	257½

Driller's log of well 40a
2¾ miles southeast of Big Spring.

Surface	9	9
Caliche	2	11
Hard white limestone and chert	15	26
Fine yellow limestone	11	37
Hard white limestone	18	55
Coarse white limestone	15	70
Broken white limestone	40	110
Hard gray limestone	37	147

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 40a--Continued

	Thickness (feet)	Depth (feet)
Yellow limestone	8	155
Very fine sand	21	176
Medium sand	8	184
Coarse sand and small gravel	53	237
Sand and gravel	18	255
Basal water bearing gravel	5	260

Driller's log of well 40b
3¼ miles southeast of Big Spring.

Soil	2	2
Gray lime	1	3
Yellow broken limestone	7	10
Yellow clay	8	18
Yellow broken limestone	12	30
Yellow clay	3	33
Yellow limestone	5	38
Yellow clay	8	46
Yellow limestone	5	51
Hard, white sandy limestone	3	54
Yellow sand rock	9	63
Dry, white sand	8	71
Hard sand rock	11	82
Yellow sand	19	101
Yellow sand rock	9	110
Water sand and gravel	23	133
Yellow sand rock	8	141
Compact sand	3	144
Water gravel	8	152
Mixed clay	3	155
Red bed	17	172

Driller's log of well 50
4¾ miles southeast of Big Spring.

Soil	2	2
Boulders	3	5
Gray lime	6	11
Yellow lime	11	22
Gray lime	24	46
Yellow lime	7	53
Yellow clay	2	55
Yellow lime	13	68
Gray lime	4	72
Blue lime	4	76
Blue shale	2	78
Yellow lime	2	80
Blue lime	26	106
Yellow lime, water in crevice	4	110
Yellow lime	6	116
Water sand	49	165
Red beds	21	186
Packed sand	19	205
Water sand and gravel	10	215
Red beds	5	220

Driller's log of well 51
4¾ miles southeast of Big Spring.

Soil	2	2
Boulders	4	6
Gray lime	15	21
Yellow lime	24	45
Blue lime	11	56
Gray lime	20	76
Yellow lime	19	95
Gray lime	25	120
Blue lime	38	158
Yellow sandy lime	7	165
Sand and water	40	205
Compact sand	25	230
Yellow sand, water	20	250
Water gravel	10	260
Red bed	5	265

Driller's log of well 52
4¾ miles southeast of Big Spring.

Soil	2	2
Gray lime	1	3
Yellow broken lime	7	10
Yellow clay	8	18
Yellow broken lime	12	30
Yellow clay	3	33
Yellow lime	5	38
Yellow clay	8	46
Yellow lime	5	51
Hard white sandy lime	3	54
Yellow sand rock	9	63
White sand, dry	8	71
Hard sand rock	11	82
Yellow sand	19	101
Yellow sand rock	9	110
Sand and gravel, water	23	133
Yellow sand rock	8	141
Compact sand	3	144
Water gravels	8	152
Mixed clay	3	155
Red bed	17	172

Driller's log of well 53
4¾ miles southeast of Big Spring.

Soil	3	3
Boulders	4	7
Yellow lime	3	10
Gray lime	12	22
Yellow lime	9	31
Gray lime	11	42
Yellow lime	18	60
Gray sandy lime	6	66
Yellow lime	10	76
Gray lime	15	91
Blue lime	3	94
Yellow lime	8	102

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 53--Continued

	Thickness (feet)	Depth (feet)
Gray lime	6	108
Blue lime	4	112
Blue shale	4	116
Blue lime	23	139
Yellow sand and lime	16	155
Yellow sand and rock	8	163
Gravel and sand, water	12	175
Packed sand	15	190
Gravel and sand, water	4	194
Compact sand	46	240
Gravel and sand, water	14	254
Yellow clay	5	259
Red bed	3	262

Driller's log of well 53a
4¾ miles southeast of Big Spring.

Soil	3	3
Yellow clay	35	38
Blue shale	12	50
Yellow lime	8	58
White lime	54	112
Yellow lime, crevice formation, would produce 80 gallons a minute	47	159
Water sand	7	166
Yellow lime	17	183
Lime	10	193
Sandy lime	4	197
Yellow sand	9	206
Quick running sand, water	28	234
Packed sand	19	253
Hard sand rock	11	264
Sand and streaks of clay or soapstone	26	290
Coarse sand and gravel	10	300
Red bed, clay	16	316

Set 236 feet of 12½ inch casing, perforated between 176 and 216 feet; and 10 inch casing to 316 feet, perforated between 280-300 feet with 4 feet lap up into 12½ inch.

Driller's log of well 55
5 miles southeast of Big Spring.

Soil	15	15
Yellow and blue clay	40	55
Gray lime	13	68
Yellow lime	12	80
Blue lime	12	92
Gray lime	9	101
Blue lime	19	120
Gray lime	8	128
Gravel and water	1	129
Gray lime	7	136
Blue shale	4	140

Driller's log of well 55--Continued

	Thickness (feet)	Depth (feet)
Broken yellow lime	7	147
Blue lime	5	152
Yellow clay	3	155
Yellow lime	5	160
Yellow clay	4	164
Yellow lime	4	168
Blue lime	16	184
Sandy lime rock	4	188
Yellow rock, gravel	7	195
White sand and water	25	220
Red rock, sand	5	225
Yellow sand rock	15	240
Yellow sand and gravel	15	255
Red rock sand	8	263
Yellow sand	34	297
Water gravel	2	299
Red bed	4	303

Driller's log of well 59b
5 miles southeast of Big Spring.

Soil	6	6
Yellow lime	32	38
Blue shale	12	50
Yellow lime	8	58
White lime	54	112
Yellow lime	47	159
Crevice and sand with 60 bailers of water per hour	7	166
Yellow lime	17	183
Lime	10	193
Sandy lime	4	197
Yellow sand	9	206
Water, quicksand	28	234
Packed sand	19	253
Sand rock	11	264
Sand and streaks of clay or soapstone	26	290
Sand and gravel	10	300
Red bed	12	312

Driller's log of well 59c
5 miles southeast of Big Spring.

Soil and rock	15	15
Yellow and blue clay	35	50
Hard rock	2	52
White lime	22	74
Yellow lime	8	82
Yellow clay	2	84
Blue lime	13	97
Gray lime	43	140
Yellow lime, sand and water crevice	10	150
Light yellow lime	12	162
Yellow clay	3	165
Yellow lime	13	178
Blue lime	16	194

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 59c--Continued

	Thickness (feet)	Depth (feet)
Gray lime	11	205
Yellow sand rock	4	209
Quicksand	5	214
Gray sand rock	24	238
Hard sand	12	250
Running sand	5	255
Gravel and sand	5	260
Running sand	7	267
Hard sand rock	5	272
Sand and gravel	9	281
Red bed	1	282

Driller's log of well 60
5 miles southeast of Big Spring.

Soil	9	9
Gray lime	13	22
Yellow lime	5	27
Gray lime	32	59
Yellow lime	23	82
Gray lime	8	90
Yellow lime	20	110
Walnut clay	6	116
Yellow lime	3	119
Blue lime	30	149
Gray lime	7	156
Yellow sand rock	14	170
Sand and gravel, water	60	230
Compact sand	6	236
Water sand	7	243
Water gravel	9	252
Yellow clay	6	258
Red bed	17	275

Driller's log of well 61
5 miles southeast of Big Spring.

White lime and boulders	6	6
Yellow lime	45	51
Gray lime	6	57
Yellow lime	18	75
Walnut colored clay	6	81
Yellow lime	9	90
Gray lime	14	104
Blue lime	28	132
Yellow lime and sand	14	146
Yellow sand rock	13	159
Gravel water	17	176
Compact sand	13	189
Water sand	26	215
Compact sand	11	226
Gravel, water	15	241
Red bed	3	244

Driller's log of well 62
4¾ miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Soil	2	2
Boulders	2	4
Gray lime	14	18
Yellow lime	48	66
Gray lime	4	70
Blue lime	4	74
Yellow lime	24	98
Gray lime	3	101
Hard sand rock	5	106
Yellow sand rock	10	116
Compact sand rock	4	120
Yellow sand rock	18	138
Water gravel	3	141
Compact sand	11	152
Water sand	23	175
Red compact sand	17	192
Water gravel and sand	10	202
Yellow clay	4	206
Red bed	3	209

Driller's log of well 64
5 miles southeast of Big Spring.

Soil and boulders	10	10
Yellow lime	7	17
Gray sandy lime	8	25
Gray lime	10	35
Hard yellow lime	7	42
Blue lime	12	54
Gray lime	14	68
Soft yellow lime	10	78
Gray lime	2	80
Cavity, water	1	81
Gray lime	17	98
Yellow lime	12	110
Blue lime	42	152
Yellow lime	4	156
Sand rock	6	162
Water gravel	10	172
Water sand	22	194
Red sand rock	8	202
Red packed sand	8	210
Yellow sand	28	238
Red and blue packed sand	10	248
Yellow sand	8	256
Water gravel	7	263
Yellow clay	2	265
Red clay	2	267

Driller's log of well 67
5 miles southeast of Big Spring.

Soil and boulders	3	3
Yellow broken limestone	48	51
Yellow clay	7	58
Gray limestone	1	59

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 67--Continued

	Thickness (feet)	Depth (feet)
Yellow clay	4	63
Yellow limestone	2	65
Yellow clay	10	75
Yellow limestone	4	79
Yellow clay	2	81
Hard sand rock	4	85
Yellow sand rock	3	88
Dry yellow sand	16	104
Sand rock	7	111
Compact sand	6	117
Yellow sand rock	5	122
Yellow sand	6	128
Water sand	25	153
Compact sand	6	159
Water sand and gravel	14	173
Red beds	25	198

Driller's log of well 68
4¾ miles southeast of Big Spring.

Soil	6	6
Yellow limestone	10	16
Yellow sand	9	25
Gray sand rock	11	36
Light yellow sand and rock	6	42
White sand rock	16	58
White sand, water	4	62
Compact sand	28	90
Water gravel	15	105
White clay	5	110
Red bed	5	115

Driller's log of well 69
4¾ miles southeast of Big Spring.

Soil	6	6
Boulders	4	10
Gravel and clay	42	52
Sand and rock	4	56
Water gravel	12	68
White sand	24	92
Red compact sand	24	116
Sand rock	6	122
Red compact sand	3	125
Water gravel	7	132
Red bed	35	167
Compact sand	15	182
Red bed	5	187

Driller's log of well 70
4¾ miles southeast of Big Spring.

Soil	6	6
Yellow lime	10	16
Yellow sand	9	25
Gray sand rock	11	36
Light yellow sand rock	6	42

Driller's log of well 70--Continued

	Thickness (feet)	Depth (feet)
White sand rock	16	58
White sand, water	4	62
Compact sand	28	90
Water gravel	15	105
White clay	5	110
Red bed	5	115

Driller's log of well 71
5 miles southeast of Big Spring.

Soil	5	5
Shell rock	13	18
Yellow lime	20	38
Yellow sand and lime	6	44
Yellow sand	8	52
Gray sand	16	68
Red clay	4	72
Water sand	3	75
Yellow sand and clay	45	120
Water sand and gravel	15	135
Yellow sand	3	138
Gravel bed	12	150
Red bed	2	152

Driller's log of well 72
5¼ miles southeast of Big Spring.

Soil	4	4
Shell rock	12	16
Yellow lime	42	58
Yellow sand	7	65
Clay	15	80
Yellow sand rock	15	95
Pink sand rock	5	100
Yellow sand rock	25	125
Water sand	20	145
Sand	10	155
Yellow sand	6	161
Mixed sand and gravel	14	175
Red bed	15	190

Driller's log of well 73
5¼ miles southeast of Big Spring.

Soil	12	12
Gravel and yellow clay	42	54
Gravel and seep water	2	56
Red bed	34	90

Driller's log of well 514a
9½ miles southeast of Big Spring.

Cellar	10	10
Pink sandy rock	45	55
Red rock	45	100
Red beds	145	245
Red rock	185	430
Brown shale	40	470

(Continued on next page)

Table of Driller's Logs, Howard County--Continued

Driller's log of well 514a--Continued

	Thickness (feet)	Depth (feet)
Red rock	50	520
Sand	20	540
Red rock	95	635
Sandy red rock	10	645
Gray water, sand	17	662
Sand	153	815
Sandy red rock	5	820
Hard sand	5	825
Red beds	15	840
Red mud	10	850
Red beds	70	920
Sandy red rock	175	1095
Shell and sand	20	1115
Red rock and shells	60	1175
Anhydrite	15	1190
Salt	90	1280
Salt and anhydrite layers	70	1350
TOTAL DEPTH		3835

Driller's log of well 548a
10 miles southwest of Big Spring.

	Thickness (feet)	Depth (feet)
White alkali formation	43	43
Water sand	18	61
White and red shale	63	124
Gypsum, rock, gravel and red clay	20	144
Red clay and boulders	61	205
Red shale	15	220
Red clay	40	260
Red clay and shale	65	325
Red clay	45	370
Rock	4	374
Red clay and boulders	46	420
Red gumbo	24	444
Red shale	6	450
Red gumbo	8	458
Red and blue gumbo	22	480
Soft red shale	40	520
Red and blue rock showing gas	12	532
Shale and gumbo	33	565
Soft, white lime and red shale	25	590
Red gumbo	7	597
Lime rock	3	600
Red gumbo	12	612
Lime rock and red shale	42	654
Hard white sand rock	7	661
Gumbo, boulders, and shale	6	667
Sand rock	2	669
Gumbo, boulders, and shale	2	671
Sand rock	14	685
Gumbo and boulders	5	690
Sand, rock, and boulders	5	695
Hard sand	18	713
Red shale and boulders	17	730
Soft shale and sand	6	736

Driller's log of well 548a--Continued

	Thickness (feet)	Depth (feet)
Hard sand	4	740
Hard lime and sand rock	19	759
Red shale and sand rock	21	780
Blue lime and sand rock	12	792
Sand rock	23	815
Red clay and gravel	5	820
Lime and hard sand	3	823
Red clay and gravel	5	828
Lime rock	10	838
Hard sand	5	843
Hard sand and red shale	6	849
Gumbo and boulders	6	855
Red shale and hard sand	21	876
Hard sand, red and blue shale	20	896
Soft shale	5	901
Red shale and sand	16	917
Hard sand	13	930
Hard shale and sand	10	940
Hard sand	7	947
Red shale	7	954
Hard sand, shale, and boulders	6	960
Sand rock	4	964
Hard sand and red shale	12	976
Sand rock	2	978
Hard sand and boulders	5	983
Hard sand, red shale, and boulders	5	988
Hard sand and boulders	8	996
Sand rock	3	999
Lime rock	9	1008
Hard sand, shale, and boulders	14	1022
Hard sand	9	1031
Hard rock	13	1044
Hard sand and boulders	6	1050
Gumbo	5	1055
Hard sand and shale	9	1064
Hard sand and boulders	5	1069
Sand rock	2	1071
Hard sand and boulders	14	1085
Hard sand	37	1122
Chalk rock	1	1123
Hard blue lime and sand	6	1129
Hard sand and boulders	22	1151
Hard sand rock	2	1153
Gypsum and blue sand rock	3	1156
Sand, shale, and boulders	24	1180
Lime and sand rock	6	1186
Shale and sand	20	1206
Hard sand showing salt water	5	1211
Lime and sand rock	3	1214
Shale and hard sand	11	1225
Gypsum rock	1	1226
Lime and red flint rock	3	1229
Shale and sand	13	1242

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 548a--Continued

	Thickness (feet)	Depth (feet)
Sand and boulders- - - - - -	2	1244
Hard lime- - - - - - - - - -	2	1246
Hard sand and boulders- - -	10	1256
Shale and sand and boulders-	6	1262
Soft shale and boulders- - -	3	1265
Hard shale and boulders- - -	10	1275
Gypsum rock and lime- - - -	1	1276
Shale and boulders- - - - -	12	1288
Sand rock- - - - - - - - - -	3	1291
Hard sand- - - - - - - - - -	4	1295
Hard sand and boulders- - -	5	1300
Shale and boulders- - - - -	6	1306
Shale, sand, and boulders- -	49	1355
Flint rock and gravel- - - -	2	1357
Shale and boulders- - - - -	64	1421
Hard sand- - - - - - - - - -	5	1426
Shale, sand, and boulders- -	44	1470
Hard sand rock- - - - - - -	2	1472
Shale and boulders- - - - -	13	1485
Shale, sand, snd boulders- -	10	1495
Sand and boulders- - - - - -	11	1506
Shale, sand, and boulders- -	22	1528
Flint rock showing gas- - -	1	1529
Sand rock- - - - - - - - - -	2	1531
Hard sand and boulders- - -	8	1539
Hard shale and boulders- - -	14	1553
Hard red granite rock- - - -	2	1555
Hard sand rock- - - - - - -	2	1557
Red shale and boulders- - -	36	1593
Gypsum rock- - - - - - - - -	2	1595
Red shale and boulders- - -	19	1614
Hard sand rock- - - - - - -	6	1620
Hard lime rock and pyrite iron- - - - - - - - - - - -	5	1625
Hard shale and boulders- - -	12	1637
Packed sand- - - - - - - - -	6	1643
Hard shale and boulders- - -	6	1649
Sand rock- - - - - - - - - -	2	1651
Lime rock- - - - - - - - - -	7	1658
Hard shale and boulders- - -	20	1678
Rock salt- - - - - - - - - -	12	1690
Shale and boulders- - - - -	11	1701
Soft shale- - - - - - - - - -	18	1719
Hard sand- - - - - - - - - -	17	1736
Red shale- - - - - - - - - -	10	1746
Lime rock- - - - - - - - - -	6	1752
Red shale and boulders - - -	20	1772

Driller's log of well 552a
13¼ miles southwest of Big Spring.

Sandstone and anhydrite- - -	30	30
Red bed- - - - - - - - - - -	25	55
Gravel and sand- - - - - - -	10	65
Sandy lime- - - - - - - - - -	15	80
Red bed, 5 bailers water per hour- - - - - - - - - - - -	130	210

Driller's log of well 552a--Continued

	Thickness (feet)	Depth (feet)
Red bed, 2 bailers water per hour- - - - - - - - - -	385	595
Red bed, hole full of water	90	685
White sand- - - - - - - - - -	20	705
Sand- - - - - - - - - - - - -	5	710
Red bed- - - - - - - - - - -	5	715
Sand- - - - - - - - - - - - -	15	730
Sandy lime- - - - - - - - - -	15	745
Water sand- - - - - - - - - -	5	750
Red bed- - - - - - - - - - -	35	785
Water sand- - - - - - - - - -	15	800
Red bed- - - - - - - - - - -	5	805
Water sand- - - - - - - - - -	25	830
Red rock- - - - - - - - - - -	50	880
Sandy red rock- - - - - - - -	10	890
Water sand, hole full of water- - - - - - - - - - - -	15	905
Red bed- - - - - - - - - - -	25	930
Red rock- - - - - - - - - - -	90	1020
Red bed- - - - - - - - - - -	195	1215
Sandy lime- - - - - - - - - -	5	1220
Red bed, caving- - - - - - -	35	1255
Water sand, hole full of water- - - - - - - - - - - -	10	1265
Red rock- - - - - - - - - - -	20	1285
Salt- - - - - - - - - - - - -	55	1340
Broken sandy lime- - - - - -	30	1370
Sandy lime, hole full of water- - - - - - - - - - - -	5	1375
Red rock- - - - - - - - - - -	5	1380
TOTAL DEPTH- - - - - - - - -		3515

Driller's log of well 569a
6¾ miles southwest of Big Spring.

White chalk- - - - - - - - -	60	60
Red rock- - - - - - - - - - -	570	630
Water sand- - - - - - - - - -	20	650
Red rock- - - - - - - - - - -	10	660
Water sand- - - - - - - - - -	100	760
Red rock- - - - - - - - - - -	10	770
Water sand, hole full of water	20	790
Red rock- - - - - - - - - - -	60	850
Red mud- - - - - - - - - - -	95	945
Red rock- - - - - - - - - - -	5	950
Red mud- - - - - - - - - - -	35	985
Red rock- - - - - - - - - - -	110	1095
Shells and sand- - - - - - -	15	1110
Red rock- - - - - - - - - - -	36	1146
Salt and streaks of red rock	54	1200
Salt- - - - - - - - - - - - -	340	1540
Sand- - - - - - - - - - - - -	33	1573
Salt- - - - - - - - - - - - -	72	1645
Red rock- - - - - - - - - - -	35	1680
Lime- - - - - - - - - - - - -	45	1725
Anhydrite and shale - - - -	15	1740

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 569a--Continued

	Thickness (feet)	Depth (feet)
Water sand, hole full water	35	1775
TOTAL DEPTH-		3230

CASING RECORD: 657 feet of 15 inch casing, 965 feet of 12 inch casing. 3010 feet of 8 inch casing.

Driller's log of well 596a

3½ miles southwest of Big Spring.

Red shale-	45	45
Red rock-	30	75
Shale-	25	100
Sandy shale-	25	125
4 bailers of water per hour at 100 feet.		
30 bailers of water per hour at 135 feet.		
Sand-	15	140
Red bed-	35	175
Red rock-	10	185
Muddy red bed-	55	240
Hard gray sand-	30	270
Water sand-	10	280
Dark red bed-	5	285
Red rock-	80	365
Sand, water-	10	375
Sandy lime-	10	385
Red bed-	15	400
Red rock-	5	405
Hard dry sand-	7	412
Gritty red shale-	8	420
Red bed-	45	465
Red shale-	50	515
Red rock-	70	585
Lime shell-	7	592
Red bed-	13	605
Red rock-	75	680
Red bed-	10	690
Lime shell-	8	698
Blue shale-	7	705
Lime shell-	5	710
Blue shale	20	730
Limestone-	15	745
Blue slate-	10	755
Red shale-	15	770
Red and blue shale-	45	815
Limestone-	3	818
Red rock-	152	970
Red bed-	25	995
Sand-	60	1055
8 bailers of water an hour at 1020 feet.		
Red rock-	10	1065
Sand-	11	1076
Limestone-	4	1080
Red shale-	10	1090
Sand-	25	1115
Hole full of water.		
Hard sand-	5	1120
Shale-	5	1125

Driller's log of well 596a--Continued

	Thickness (feet)	Depth (feet)
Red rock-	55	1180
Sand-	110	1290
Red shale-	34	1324
Salt and red shale-	51	1375
Red shale-	30	1405
Red shale and salt-	25	1430
Hard limestone-	10	1440
Salt and shells-	45	1485
Gypsum, anhydrite, and shells	35	1520
Red rock-	5	1525
Red shale-	20	1545
Gypsum, anhydrite, and shells	10	1555
Red shale and some salt	10	1565
Red shale and shells-	15	1580
Red rock and gypsum-	17	1597
Red shale-	28	1625
Red rock-	30	1655
Anhydrite-	10	1665
Blue shale-	3	1668
Red rock and shale-	24	1692
Red shale-	28	1720
Anhydrite and shells-	30	1750
Sand-	10	1760
4 bailers of water an hour.		
Red rock and break-	5	1765
Sand-	35	1800
Water, hole filled 200 feet in 1 hour.		
Red shale-	20	1820
Anhydrite-	5	1825
Red shale-	5	1830
Red rock-	10	1840
Red shale-	7	1847
Anhydrite-	18	1865
Red shale-	35	1900
Anhydrite, gypsum and salt-	40	1940
Anhydrite, shells, and red rock-	75	2015
Anhydrite-	50	2065
Red shale-	15	2080
Anhydrite, some salt, and gypsum-	70	2150
Red shale, anhydrite, sandy rock, and shale-	80	2230
Shells-	75	2305
Red shale-	10	2315
Hard anhydrite	15	2330
Red sandy shale-	30	2360
Anhydrite and shells-	65	2425
Anhydrite-	20	2445
Red sandy shale and shells-	25	2470
Fine red sand-	40	2510
Anhydrite-	10	2520
Anhydrite and shale-	45	2565
Hard anhydrite-	35	2600
TOTAL DEPTH-		4400

CASING RECORD: 180 feet of 20 inch casing, 405 feet of 15⅓ inch casing, 1163 feet of of 12¼ inch casing, 1842 feet of 10 inch casing, 3012 feet of 8¼ inch casing, 4113 feet of 6-5/8 inch casing.

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 599a
5¾ miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Clay and gypsum	38	38
Yellow sand	12	50
White sand	5	55
White sand, 30 barrels of water per 24 hours	5	60
Brown sand	6	66
White water sand, 150 barrels of water per 24 hours	4	70
Red bed	859	929
Red sand, 212 barrels of salt water per 24 hours	13	942
Red bed	373	1315
Brown shale	40	1355
Red bed	101	1456
Sand, 18 barrels of salt water per 24 hours	4	1460
Sandy red bed	30	1490
Red bed	40	1530
Red sand	8	1538
Red sand, showing slight trace of oil	10	1548
Red bed	4	1552
Brown sand	12	1564
Red bed	356	1920
Anhydrite	85	2005
Anhydrite, 160 barrels of salt water per 24 hours	15	2020
Gray water sand, hole full of salt water	14	2034
Red sand and shale	11	2045
Red sand	7	2052
Red and blue shale	3	2055
Red shale	10	2065
Red bed	40	2105
Anhydrite	10	2115
Red bed and anhydrite	15	2130
Anhydrite	10	2140
TOTAL DEPTH		3933

Driller's log of well 602a
8¾ miles south of Big Spring.

Surface formation	30	30
Sand and gravel	5	35
Red rock	290	325
Brown sandy shale	40	365
Hard shale	15	380
Brown shale	95	475
Red rock	25	500
Red shale	50	550
TOTAL DEPTH		3270

CASING RECORD: 85 feet of 15½ inch casing. 480 feet of 12½ inch casing. 1240 feet of 10 inch casing. 1560 feet of 5-3/16 inch casing.

Driller's log of well 605a
4¼ miles southwest of Big Spring.

	Thickness (feet)	Depth (feet)
Sand and shells	140	140
Red rock	180	320
Sand	20	340
Blue shale	10	350
Brown shale	20	370
Blue shale	30	400
Red shale	15	415
½ bailer of water per hour 325 - 340 feet.		
Shale	85	500
Red rock and limestone	55	555
Red shale	30	585
Limestone and shale	15	600
Water 590-595 feet.		
Sandy limestone	15	615
Red rock	10	625
Sand	20	645
Shale	5	650
Sandy limestone	10	660
Red shale	5	665
Sand	25	690
Water sand	10	700
Shale, sand, and gypsum	14	714
Hole full of water 714-730 feet.		
Sand	46	760
Red shale and gypsum	10	770
Rock	145	915
Rock and limestone	15	930
Rock	50	980
Sandy rock	60	1040
Rock	98	1138
Limestone	12	1150
Anhydrite	10	1160
Salt	5	1165
TOTAL DEPTH		3504

CASING RECORD: 787 feet of 10 inch casing. 1768 feet of 8¼ inch casing.

Driller's log of well 616a
8¾ miles south of Big Spring.

Surface	12	12
Lime	28	40
Shale	10	50
Broken lime	15	65
Lime	20	85
Sand, 6 bailers of water per hour	75	160
Red shale	20	180
Red rock	50	230
Red shale and red bed	260	490
Blue mud	35	525
Red bed	100	625
Water sand	15	640
5 bailers of water per hour.		

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 616a--Continued

	Thickness (feet)	Depth (feet)
Red rock	225	865
Sand	15	880
Red rock	90	970
Blue shale	5	975
Red rock	10	985
Lime shell	5	990
Red rock	95	1085
Lime shells	35	1120
Red rock and lime	55	1175
Shell	10	1185
Sand	25	1210
Red rock	50	1260
Red rock and blue shale	15	1275
Red rock	55	1330
Blue shale	20	1350
Red rock	205	1555
Soft gray sand	20	1575
Soft shale and gray sand	28	1603
Hard sandy shale	6	1609
Red shale	161	1770
Sandy, salty, red shale	20	1790
Shells	10	1800
Red shale	105	1905
Gypsum	10	1915
Red shale	90	2005
Gypsum	30	2035
Red shale	190	2225
Water sand	5	2230
2 bailers of water per hour.		
Red shale	350	2580
TOTAL DEPTH		3850

Driller's log of well 620a
11¾ miles southeast of Big Spring.

Soil	3	3
Caliche	9	12
Lime	38	50
Shale	10	60
Sand	68	128
Water sand	27	155
Red bed	310	465
Lime and red rock	187	652
Shale	113	765
Sand	27	792
Lime and shale	138	930
Sandy lime	35	965
Lime and shale	100	1065
Anhydrite	15	1080
Lime and anhydrite	118	1198
Red rock and anhydrite	9	1207
Anhydrite and lime	2	1209
Gray lime	2	1211
Anhydrite	3	1214
Oil sand	13	1227
TOTAL DEPTH		1227

CASING RECORD: 157 feet of 10 inch casing.
1215 feet of 7 inch casing.

Driller's log of well 635a
11 miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Soil	12	12
Yellow lime	23	35
Gray lime	70	105
Blue lime	20	125
Brown lime	35	160
Soft sand	20	180
Red rock	5	185
Brown sand	10	195
Red sand	35	230
White sand	10	240
Red rock	175	415
Gray shale	20	435
Red rock	380	815
Red sand	15	830
Hole full of water 825 feet.		
Red rock	30	860
Red lime	10	870
Gray lime	160	1030
Red rock	5	1035
Gray shale	15	1050
Red shale	35	1085
Red bed	185	1270
Blue shale	25	1295
Red bed	435	1730
Red sandy shale	67	1797
Gray lime	14	1811
Red shale	9	1820
Shale and lime shells	4	1824
Light lime	21	1845
Red sand, hole full water	25	1870
Red rock	55	1925
Gray sand	5	1930
Gray lime	12	1942
Red sandy shale	5	1947
Red rock	128	2075
Red sandy shale	65	2140
Gravel	17	2157
Red sandy shale	8	2165
Red sand, water	145	2310
Water from 2165 feet to 2310 feet.		
Red rock	15	2325
Lime	10	2335
Red rock	15	2350
Lime	25	2375
Red shale	45	2420
Anhydrite	50	2470
Gray lime	60	2530
Lime shells	25	2555
White lime	20	2575
Gray lime	40	2615
Sandy lime, small showing of oil	15	2630

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 635a--Continued

	Thickness (feet)	Depth (feet)
Gray lime	295	2925
Blue lime	30	2955
Water sand, small amount of water	15	2970
Blue lime	10	2980
Dry sand	20	3000
Blue lime	15	3015
Gray lime	50	3065
Brown lime	125	3190
Gray lime	165	3355
Blue lime	65	3420
Gray lime	40	3460
Brown lime	40	3500
Gray lime	45	3545
Water sand	10	3555
Gray sandy lime	30	3585
Blue sandy lime	7	3592
Gray sandy lime	2	3594
Blue sandy lime	11	3605
Gray sandy lime	17	3622
Brown sand	5	3627
Water at 3623		
Gray sandy lime	17	3644
Sand, water	16	3650
Blue sandy lime	21	3671
Gray sandy lime	17	3688
Lime	42	3730
TOTAL DEPTH		3730

Driller's log of well 637
13½ miles southeast of Big Spring.

Caliche	10	10
Reddish clay	55	65
Sandy shale, showing of water	5	70
Red rock	10	80
Yellow clay, sandy	40	120
Sand rock	25	145
2 barrels of water per hour at 120 feet.		
Gravel	12	157
Brown sand	13	170
Quicksand	10	180

Hole filled 80 feet with water, unable to bail down. Estimated good for 400 barrels per day. Average pumped 150 barrels per day.

Driller's log of well 649a
16¾ miles southeast of Big Spring.

Soft red bed	365	365
Hard muddy red rock	35	400
Soft red bed	50	450
Sand and gravel	20	470
Red bed	30	500
Chocolate colored red bed	20	520
Soft red bed	105	625
Shale and shell	20	645

Driller's log of well 649a--Continued

	Thickness (feet)	Depth (feet)
Water sand	10	655
Sand	35	690
Brown sand, hole full of salt water	5	695
Red bed	120	815
Soft gray sand	20	835
Red bed	100	935
Lime	40	975
Broken lime	65	1040
Hard lime, shells and red rock	20	1060
Hard gray lime	20	1080
Red rock and shells	20	1100
Gray lime with red rock [illegible] breaks	35	1135
White broken lime	25	1160
Hard white lime	10	1170
Red rock	10	1180
Hard white lime	30	1210
Hard gray lime	10	1220
Soft red rock	55	1275
Hard gray lime	28	1303
Show of oil at 1300 feet.		
Broken sand and red rock	22	1325
Red rock and lime shells	25	1350
Lime	20	1370
Red rock	10	1380
Brown sand	15	1395
Red rock	5	1400
Red sand	20	1420
Gray lime	15	1435
Brown lime	20	1455
Brown sand, hole full of water	5	1460
Lime	10	1470
Sand and brown salt	10	1480
Black lime	5	1485
Gray lime	5	1490
Sand and rock	10	1500
TOTAL DEPTH		3202

CASING RECORD: 540 feet of 15½ inch casing. 698 feet of 12½ inch casing. 1420 feet of 10 inch casing. 1920 feet of 8¼ inch casing. 2650 feet of 6-5/8 inch casing.

Driller's log of well 653a
16 miles east of Big Spring.

Red clay	48	48
Lime	8	56
Sand	4	60
Red bed	255	315
Blue shale	35	350
Red bed	110	460
Red rock	100	560
Gray shale	15	575

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 653a--Continued

	Thickness (feet)	Depth (feet)
Gray water sand, 1 bailer of water per hour	35	610
Gray sand	10	620
Red rock	125	745
Water sand	20	765
Red rock	85	850
Blue shale	40	890
Water sand	45	935
Red rock	75	1010
Anhydrite, red shale	35	1045
Red rock	110	1155
Lime	35	1190
Red rock	40	1230
Lime	15	1245
Red sand	5	1250
Red shale, lime shells	140	1390
Lime	65	1455
Sandy red shale	30	1485
Anhydrite, red shale	75	1560
Red sand, 5 bailers water per hour	25	1585
Lime	10	1595
Red sand, shale	35	1630
Sand	15	1645
Lime	10	1655
Water sand, hole full of water	20	1675
Sandy lime	10	1685
Lime, red sand	10	1695
Lime	10	1705
Gray sandy shale	7	1712
Water sand	3	1715
Blue shale	10	1725
Red sandy shale	15	1740
Red bed, shell	13	1753
Lime	2	1755
Anhydrite, red shale	65	1820
Lime	80	1900
Gray lime	75	1975
Dark lime	95	2070
Brown lime	40	2110
Gray lime	45	2155
Brown lime	20	2175
White lime	10	2185
Water 2155 -2175 feet.		
White lime	30	2215
Lime	35	2250
Brown lime	25	2275
Lime	70	2345
Gray lime	65	2410
Lime	20	2430
Gray lime	25	2455
Lime	25	2480
Dark lime	55	2535
Brown lime	30	2565
Lime	70	2635

Driller's log of well 653a--Continued

	Thickness (feet)	Depth (feet)
White lime	55	2690
Brown lime, oil pay	19	2709
TOTAL DEPTH		2955

CASING RECORD: 617 feet of 12⅓ inch casing. 942 feet of 10 inch casing. 1758 feet of 8¼ inch casing. 2547 feet of 6-5/8 inch.

Driller's log of well 656a

9¾ miles east of Big Spring.

	Thickness (feet)	Depth (feet)
Red mud	50	50
Gravel	10	60
Red mud	348	408
Brown shale	17	425
Sand, water	17	442
Red bed	8	450
Water sand	20	470
Blue shale	20	490
Red bed, run 12⅓ inch casing	125	615
Brown shale	10	625
Red bed, run 10 inch casing	105	730
Sand, water	20	750
Lime	27	777
Red bed	93	870
Lime	8	878
Red bed	121	999
Lime	6	1005
Red bed	30	1035
Lime	21	1056
Red bed	30	1086
Anhydrite	17	1103
Water sand, ½ bailer of water an hour.		
Red bed	57	1160
Red rock	25	1185
Anhydrite	15	1200
Red rock	20	1220
Anhydrite	15	1235
Red rock	20	1255
Salt	30	1285

Driller's log of well 682a

6 miles east of Big Spring.

	Thickness (feet)	Depth (feet)
Surface sand	115	115
Red sand	60	175
Red beds	48	223
Red sand	20	243
Red beds	105	348
Hard sand	10	358
Red beds	40	398
Dry brown sand	5	403
Red beds	100	503
Sticky red beds	68	571
Hard sand	5	576
Red beds	15	591
Water sand	12	603

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 682a--Continued

	Thickness (feet)	Depth (feet)
Hard sandy shale	60	663
Hard sand	46	709
Red beds	30	739
Shale and red beds	18	757
Sandy lime	2	759
Shale and lime shells	106	865
Lime	11	876
Hard sandy lime	2	878
Gypsum	1	879
Shale and lime shells	10	889
Hard broken sand	36	925
Anhydrite	2	927
Missing	30	957
Broken lime	18	975
Sandy lime	1	976
Hard lime, later called salty	21	997
Lime and red beds	3	1000
TOTAL DEPTH		3670

Driller's log of well 685a
5 miles east of Big Spring.

Caliche	15	15
Gravel, some water	15	30
Gravel and sand, hole full of water	20	50
Red mud	20	70
Sand and gravel	5	75
Red beds	55	130
Sandstone	15	145
Sandy blue shale	10	155
Red beds	40	195
Gray lime	5	200
Red beds	195	395
Water sand, hole full of water	25	420
Red rock	30	450
Brown water sand	15	465
Fine gray and brown sand	25	490
Red rock	300	790
Anhydrite	20	810
Anhydrite and red rock	40	850
Red rock	10	860
Anhydrite	10	870
Salt	360	1230
TOTAL DEPTH		3618

Driller's log of well 689b
2 miles northeast of Big Spring.

Sand	60	60
Red beds	125	185
Blue shale	10	195
Sand	30	225
Red beds	27	252
Sand	6	258
Red beds, 1 bailer water per hour 352-358 feet	7	265

Driller's log of well 689b--Continued

	Thickness (feet)	Depth (feet)
Red beds	190	455
Red beds, water at 505	50	505
Sand	30	555
Red beds and sand	20	575
Sandy red beds	13	588
Red beds	162	750
Red beds and salt	20	770
Brown shale	10	780
Red rock	5	785
Brown lime and shale	25	810
Red rock	35	845
Red bed	80	925
Anhydrite, gypsum and red beds	10	935
Salt and red beds	165	1100
Salt and potash	230	1330

8 bailers sulphur water per hour at 3274-3275.

Driller's log of well 745a
12¼ miles northeast of Big Spring.

Red rock	40	40
Water sand, 2 bailers water per hour	5	45
Red rock	80	125
Lime	10	135
Red rock	80	215
Brown shale	25	240
Gray sand	40	280
White sand, 17 bailers water per hour	10	290
Anhydrite	20	310
Lime	10	320
Red rock	85	405
Brown shale	65	470
Red beds	460	930
Conglomerate	35	965
Salt	280	1245
TOTAL DEPTH		4007

CASING RECORD: 1 joint of 20 inch surface casing. 324 feet of 15½ inch surface casing. 816 feet of 12½ inch surface casing. 2149 feet of 10 inch surface casing. 3233 feet of 6-5/8 inch casing.

Driller's log of well 832a
3¾ miles north of Big Spring.

Sand	85	85
Red beds	15	100
½ bailer water per hour.		
Gravel	5	105
Red bed	145	250
Red beds and light blue shale	45	295
Red beds	67	362
Red rock	23	385

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Table of Drillers' Logs, Howard County--Continued

Driller's log of well 882a--Continued

	Thickness (feet)	Depth (feet)
Sandy lime	30	415
Water sand	10	425
3 bailers water per hour.		
Sandy lime	15	440
Red rock	65	505
Red beds and light blue shale	45	550
Sandy lime	10	560
1⅓ bailers water per hour.		
Red rock	15	575
Shelly shale	25	600
Red beds and lime shell	5	605
Red rock	20	625
Red rock and red beds	55	680
Red sand	15	695
Gray water sand	15	710
Hole full of salt water.		
Blue shale	10	720
Red rock	10	730
Red beds and light blue shale	20	750
Red rock and blue shale	25	775
Red beds	15	790
Red beds and lime shells	10	800
Red rock	20	820
Red beds	20	840
Red rock	15	855
Red rock and light blue shale	15	870
Red beds	25	895
Red beds and red rock shells	25	920
Shelly shale	60	980
Red rock	20	1000
Red beds	40	1040
Red rock	30	1070
Lime	5	1075
Red bed and gypsum	40	1115
Red rock	10	1125
Gypsum	15	1140
Gypsum red rock and salt	120	1260
Hole full of sulphur water at 3440.		
TOTAL DEPTH		3440

Driller's log of well 882a

9½ miles northwest of Big Spring.

Surface soil	15	15
Clay	35	50
Shale	25	75
Sand	25	100
Shale and boulders	150	250
Sand	15	265
Gumbo	15	280
Shale	20	300
Gumbo	40	340
Packed sand	20	360
Shale	40	400
Sand rock	12	412
Shale and boulders	88	500

Driller's log of well 882a--Continued

	Thickness (feet)	Depth (feet)
Packed sand	15	515
Gumbo	20	535
Sandy shale	85	620
Gumbo	15	635
Shale and boulders	80	715
Sand	10	725
Sandy shale	75	800
Gumbo	15	815
Sand	25	840
Sand rock	10	850
Sandy shale	50	900
Shale and boulders	50	950
Sand	15	965
Sand rock	18	983
Shale and boulders	17	1000
Sand and rock salt	7	1007
TOTAL DEPTH		3390

Driller's log of well 915a

7¾ miles southwest of Big Spring.

White shale	15	15
Soft, sandy red rock	15	30
Soft red rock	15	45
Pink rock	15	60
Red rock	15	75
Red beds	10	85
Hard red bed	10	95
Red mud or clay	10	105
Soft, muddy red bed	45	150
Red bed	320	470
Red sand	35	505
Red bed	10	515
Red rock	40	555
Red bed	45	600
Red rock	50	650
Gray sand	20	670
Sand, water	55	725
Red bed	10	735
Hard gray sand	40	775
Red bed	170	945
Red rock	40	985
Red bed	100	1085
Salt	20	1105
Hole full of sulphur water at 3570.		
TOTAL DEPTH		3750

Driller's log of well 919a

6½ miles west of Big Spring.

Surface sand	130	130
Gravel, sand	7	137
Surface sand	8	145
Sandy red rock	5	150
Red bed	80	230
Red rock	8	238
Red mud	177	415

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 919a--Continued

	Thickness (feet)	Depth (feet)
Blue mud	82	497
Red mud	28	525
No record	25	550
Red mud	35	585
Red rock	51	636
Red bed	66	702
Water sand	45	747
10 bailers of water per hour.		
No record	5	752
Red bed	23	775
Sand	39	814
Hole full of water	76	790
Sand, gravel	32	822
Red bed	243	1065
Red rock	27	1092
Brown and gray lime	39	1131
Red mud	31	1162
Brown and gray lime	8	1170
Red mud	36	1206
Brown and gray lime	9	1215
Salt	8	1223
Total Depth		3507

Driller's log of well 923a

4¾ miles west of Big Spring.

	Thickness (feet)	Depth (feet)
Surface	24	24
Brown sand	6	30
White sand	66	96
Sand and gravel	31	127
Red beds	10	137
Gravel	5	142
Red rock and shale	21	163
Red mud	147	310
Brown mud	38	348
Blue mud	4	352
Red rock	12	364
Green rock	16	380
Limestone	18	398
Red rock	29	427
Red mud	170	597
Brown mud	24	621
Gravel beds and sand	17	638
Red mud	52	690
Gray mud, hole full of water between 700-728 feet	34	734
Gray sand	14	748
Red mud	22	760
Sand and gravel	21	781
Red rock	70	851
Red beds	49	900
Red rock	75	975
Red rock and limestone	50	1025
Red rock	88	1113
Red rock and limestone	10	1123
Red rock	12	1135
Hard limestone	20	1155
Salt	185	1340
TOTAL DEPTH		4208

Driller's log of well 924a

2¼ miles northwest of Big Spring.

	Thickness (feet)	Depth (feet)
Sand and red clay	17	17
Red sand	73	90
Red rock	220	310
Sand	20	330
Water sufficient to drill.		
Red rock and red bed	313	643
Sand	57	700
Hole full of water 660 feet.		
Red rock and shale	384	1084
½ bailer of water per hour at 795 feet.		
Salt and anhydrite	406	1490
Sulphur water 3398 feet.		
TOTAL DEPTH		3398

Driller's log of well 925

3½ miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Hard white lime with chert	22	22
Coarse white lime	10	32
Fine white limestone	18	50
Coarse yellow limestone	15	65
Medium coarse white lime	10	75
Blue shale and some lime	25	100
Coarse yellow lime	30	130
Limestone	18	148
Sand	19	167
Pink clay	5	172
Light colored clay and sand	21	193
Yellow clay	4	197
Light pink clay	13	210
Dark pink clay and sand	18	228
Red bed	15	243
TOTAL DEPTH		243
Static water level after 24 hours 210 feet.		

Driller's log of 926a

3 miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Yellow lime	190	190
Sand and gravel	78	268
Red beds	77	345
Red rock	555	900
Blue shale	15	915
White sand	5	920
Red rock	15	935
White sandy shale	20	955
Red rock	170	1125
Red shale	15	1140
White water sand	75	1215
White sand	55	1270
Red shale	50	1320
Anhydrite	5	1325
Red shale	245	1570
Anhydrite	20	1590
Red shale and shells	140	1730

(Continued on next page)

Table of Driller's Logs, Howard County--Continued

Driller's log of well 926a--Continued

	Thickness (feet)	Depth (feet)
Anhydrite	15	1745
Sandy lime	10	1755
Anhydrite	100	1855
Red shale	35	1890
Water sand	30	1920
Red shale	15	1935
Anhydrite	15	1950
Red shale	10	1960
Water sand	5	1965
Anhydrite	10	1975
Muddy red sand	30	2005
Anhydrite	10	2015
Salt and anhydrite shells	60	2075
TOTAL DEPTH		4005

Driller's log of well 929a
6 miles southeast of Big Spring.

No log	570	570
Sand	42	612
Brown shale	14	626
Lime	4	630
Water sand	25	655
Red shale	13	668
Hard red shale	3	671
Light lime	13	684
Red sticky shale	16	700
Shale	45	745
Brown shale	98	843
Red shale	47	890
Brown shale	134	1024
Salt	356	1380
TOTAL DEPTH		3150

Driller's log of 932a
6¼ miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Soil	3	3
Yellow lime	32	35
Gray lime	9	44
Gray shale	15	59
Blue shale	25	84
Yellow lime	30	114
Yellow sand and water	36	150
Gray sand	13	163
Pink clay	4	167
Gray sand and gravel	13	180
Pink clay	9	189
Sand and gravel	15	204
Gravel with water	5	209
Red bed	21	230

Driller's log of well 935a
9 miles south of Big Spring.

Soil	1	1
White lime	4	5
Shell rock	20	25
White, hard lime	25	50
Yellow lime	29	79
Blue lime	46	125
Yellow lime and clay	10	135
Gray lime	26	161
Dark pink clay	4	165
Light pink clay	26	191
Pink clay and sand	6	197
Gray packed sand	19	216
Water gravel	4	220
Red clay	10	230
Gravel and water	8	238
Red bed	9	247

Logs of test wells drilled by W. P. A. labor in Howard County, Texas.
Samples examined and classified by J. Howard Samuell,
Project Superintendent.

Well 101

Flat, County road, SW.¼, SW.¼, Sec. 14, T. 1 S., Block 33, 3¾ miles southwest of Big Spring.

	Thickness (feet)	Depth (feet)
Sandy surface soil	3	3
Limestone and caliche	3½	6½
Small stone and clay	4	10½
Pink clay and gravel	10	12½
Reddish clay and gravel	3	15½
Gravel and clay	4	19½
Red clay and small gravel	2	21½

No water sample collected. Mar. 2, 1936.

Well 102

Dry creek bed, county road, NW.¼, NW.¼. Sec. 30, T. 1 S., Blk. 33, 7½ miles southwest of Big Spring.

Fine brown sand	2	2
Yellow sand and gravel	4	6
Yellow clay and gravel	1	7
Yellow clay	2	9
Yellow sand and gravel	4	13
Yellow clay and small gravel	3	16

No water sample collected. Mar. 12, 1936.

Well 103

Dry creek bed, county road, SE.¼, SE.¼, Sec. 35, T. 1 S., Blk. 33, 6¼ miles south of Big Spring.

Surface soil	2	2
Yellow sand and clay	½	2½
Yellow clay and gravel	½	3
Yellow sand and fine gravel	1	4
Yellow sand, medium gravel, and clay	2	6
Yellow clay and gravel	½	6½
White clay and gravel	1	7½

No water sample collected. Mar. 19, 1936.

Well 104

Flat, Elbow store, NE.¼, NE.¼, Sec. 4, T. 1 S. Blk. 33. 6½ miles south of Big Spring.

Surface soil	6	6
Red and white clay	2	8
White clay and caliche	14	22
Red clay	6	28
White clay and caliche	9	37
Red clay and gravel	½	37½
Red clay, sand, and gravel	1½	39
Red clay and gravel	1	40
Gravel	3	43

Struck water at 40 feet.
Water level, 40 feet below top of ground, 8 hours after hole completed.
No water sample collected. Mar. 24, 1936.

Well 105

Hilltop, Mrs. Dora Roberts ranch, NE.¼, NE.¼, Sec. 45, T. 1 S., Blk. 31, 11 miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil	1½	1½
Lime caliche	1½	3
Pink shale and gravel	3	6
Red clay, sand and gravel	8½	14½
Red bed	1½	16

No water sample collected Mar. 26, 1936.

Well 106

Flat, Mrs. Dora Roberts ranch, SW.¼, NE.¼, Sec. 81, T. and N. W. R. R. Co. Survey, Blk. 293, 10½ miles southeast of Big Spring.

Sandy soil	8	8
Red clay and caliche	1	9
Pink clay and caliche	1	10
Red bed	2	12

No water sample collected. Apr. 7, 1936.

Well 107

Canyon, Mrs. Dora Roberts ranch, SW.¼, NE.¼, Sec. 81, T. and N. W. R. R. Co. Survey, Blk. 29, 10½ miles southeast of Big Spring.

Caliche	3	3
Rock and caliche	1	4
Hard white limestone	2	6

No water sample collected. Apr. 8, 1936.

Well 108

Valley floor, H. T. Hale tract, SW.¼, NW.¼, Sec. 32. T. 1 N., Blk. 30, 12½ miles east of Big Spring.

Black gumbo	5½	5½
Sand and clay	½	6
White clay and fine sand	1½	7½
Red sandy clay	1½	9
Sand and gravel	3	12
Light red clay	6	18

Struck water at 8.8 feet.
Water level, 8.8 feet below top of ground, 1 hour after hole completed.
Water sample collected. Apr. 9, 1936.

Well 109

Valley floor, H. T. Hale tract. SW.¼, NW.¼, Sec. 32, T. 1 N., Blk. 30, 12½ miles northeast of Big Spring.

Black gumbo	4½	4½
Red clay, sand, and gravel	10	14½

Struck water at 9.5 feet.
Water level, 9.5 feet below top of ground, 1 hour after hole completed.
No water sample collected. Apr. 9, 1936.

Logs of test wells in Howard County--Continued

Well 110

Valley floor, H. T. Hale tract, NW.¼, NW.¼, Sec. 32, T. 1 N., Blk. 30, 12⅝ miles northeast of Big Spring.

	Thickness (feet)	Depth (feet)
Black gumbo	4½	4½
Red clay and gray sand	3	7½
Red clay and gravel	11½	19

Struck water at 7.6 feet.
Water level 4.6 feet below top of ground, 1 hour after hole completed.
No water sample collected. Apr. 10, 1936.

Well 111

Valley, H. T. Hale tract, SW.¼, NW.¼, Sec. 32, T. 1 N., Blk. 30, 12⅞ miles east of Big Spring

Black gumbo	5½	5½
Red clay and gravel	7½	13
Red clay		

Struck water at 5.7 feet.
Water level, 5.7 feet below top of ground, 2 hours after hole completed.
No water sample collected. Apr. 10,1936.

Well 112

Flat, H. T. Hale tract, NE.¼, NW.¼, Sec. 32, T. 1 N., Blk. 30, 12¾ miles northeast of Big Spring.

Black gumbo	5	5
Red clay	1	6
Red clay, sand and small gravel	4	10

Struck water at 6 feet.
Water level, 6 feet below top of ground, 1 hour after hole completed.
No water sample collected. Apr. 10,1936.

Well 113

Valley, H. T. Hale tract, NE.¼, NW.¼, Sec. 32, T. 1 N., Blk. 30, 13 miles northeast of Big Spring.

Black shale	5	5
Dark red clay	2	7
Red clay, sand and gravel	3½	10½

Struck water at 7 feet.
Water level, 6.5 feet below top of ground, 1 hour after hole completed.
No water sample collected. Apr. 10,1936.

Well 114

Flat, H. T. Hale tract, SE.¼, NW.¼, Sec. 32, T. 1 N., Blk. 30, 12 miles east of Big Spring.

Black surface soil	2½	2½
Gray sand and clay	4½	7
Pink sand and gravel	2	9
Pink clay, sand and gravel	4½	13½

Well 114--Continued

Struck water at 4.6 feet.
Water level 9.0 feet below top of ground, 2 hours after hole completed.
No water sample collected. Apr. 13,1936.

Well 115

Flat, H. T. Hale tract, NW.¼, NW¼, Sec. 32, T. 1 N., Blk. 30, 12⅜ miles northeast of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil	1½	1½
Caliche and gray clay	6	7½
Gray sand	4½	12

Struck water at 9.4 feet.
Water level, 9.4 feet below top of ground, 2 hours after hole completed.
No water sample collected. Apr. 13,1936.

Well 116

Flat, D. A. Thomasson tract, NW.¼, NW.¼, Sec. 44, T. 1 N., Blk. 30, 12¼ miles east of Big Spring.

Sandy clay	10	10
Red bed	17	27
Sandstone	5	32
Red and blue shale	3	35

No water sample collected. Apr. 23,1936.

Well 117

Creek bed, H. N. Read Estate tract. NE.¼, NE.¼, Sec. 27, T. 1 N., Blk. 30, 15½ miles northeast of Big Spring.

Red sandy shale	8	8
Red bed	17	25
Sandstone	5	30
Red bed	5	35

No water sample collected. Apr. 15,1936.

Well 118

Creek bed, near city sewer plant, NE.¼, SW.¼, Sec. 46, T. 1 S., Blk. 32, 3¼ miles east of Big Spring.

Surface clay and sand	3	3
Sand	3	6
Red sand	3	9

Struck water at 6 feet.
Water level, 6.0 feet below top of ground, 1 hour after hole completed.
No water sample collected. May 14,1936.

Logs of test wells in Howard County--Continued

Well 119

Flat, 18th. and Nolan Streets, SE.¼, of NE.¼, Sec. 6, T. 1 S., Blk. 32, 1 mile southeast of Big Spring courthouse.

	Thickness (feet)	Depth (feet)
Surface soil	1	1
Caliche, yellow clay, and rock	5½	6½
Sandy gravel and clay	1½	8
Caliche and gravel	1	9

No water sample collected. May 25, 1936.

Well 120

Flat, Lion Rice tract, NW.¼, NE.¼, Sec. 5, T. 1 S, Blk. 32, 1½ miles east of Big Spring courthouse.

Surface soil	3½	3½
Reddish clay	4	7½
Caliche and gravel	5½	13
Sand and gravel	1	14
Reddish clay and gravel	2	16
Reddish clay	2½	18½
Yellow clay and gravel	7	25½
Yellow clay	8½	34
Pinkish clay and caliche	26	60
Caliche, blue shale, and clay	5	65
Pink sandy shale	5	70

No water sample collected. May 8, 1936.

Well 121

Flat, Boyd McDaniel Property, SW.¼, NW.¼, Sec. 5, T. 1 S., Blk. 32, 1 mile southeast of Big Spring courthouse.

Surface soil	3	3
Pinkish clay and sand	7	10
Caliche and gravel	2½	12½
Caliche rock and gravel	1½	14
Gravel	4	18
Pink clay and gravel	10	28
Sand and small gravel	4	32
Sand and gravel	4	36
Pink clay and gravel	4½	40½

No water sample collected. June 6, 1936.

Well 122

Hillside, Mary Foster ranch SE.¼, SW.¼, Sec. 6, T. 1 S., Blk, 30, 17½ miles east of Big Spring.

Caliche	3	3
Sandstone	11	14
Red clay and gravel	8	22
Blue shale and red clay	1	23
Red shale and clay	6	29

No water sample collected. Apr. 11, 1936.

Well 123

Flat, L. M. Bankson tract, SE.¼, NW.¼, Sec. 44, T. 1 N., Blk. 32, 1 mile northeast of Big Spring.

Surface soil	4	4
Pink clay and sand	6	10

Well 123--Continued

	Thickness (feet)	Depth (feet)
White sand	4	14

Struck water at 10 feet.
Water level, 7.8 feet below top of ground, 24 hours after hole completed.
No water sample collected. July 7, 1936

Well 124

Flat, Ben P. Boydston tract, SW.¼, SE.¼, Sec. 41, T. 1 N., Blk.32, 1 mile northeast of Big Spring courthouse.

Pink sandy soil	11	11
Pink sand	3	14

Struck water at 11.6 feet.
Water level, 12.0 feet below top of ground, 2 hours after hole completed.
Water sample collected. July 8, 1936.

Well 125

Flat, Ben P. Boydston tract, Sw.¼, SE.¼, Sec. 41, T. 1 N., Blk. 32, 1 mile northeast of Big Spring courthouse.

Surface soil	2	2
Pink sand	9½	11½
White water sand	3	14½

Struck water at 12 feet.
Water level 12.0 feet below top of ground, 1½ hours after hole completed.
No water sample collected. July 8, 1936.

Well 126

Flat, Hubert Weatherford tract, SE.¼, NW.¼, Sec. 2, T. 1 S., Blk. 33, 2 miles southwest of Big Spring.

Black surface soil	1	1
Red clay	1	2
Caliche	1	3
Pink clay	13½	16½

No water sample collected July 9, 1936.

Well 127

Creek bank. B. Reagan tract, NE.¼, SE.¼, Sec. 7, T. 1 S., Blk., 31, 6½ miles east of Big Spring.

Pink sand and clay	3	3
Pink clay and gravel	10	13
Pink clay and sand	3	16
Gravel and pink sand	2	18
Sand and gravel	1	19
Large boulders, clay and gravel	2½	21½
Clay, rock and gravel	1½	22

Struck water at 21.6 feet.
Water level, 20.0 feet below top of ground 24 hours after hole completed.
Water sample collected. Aug. 3, 1936.

Logs of test wells in Howard County--Continued

Well 128

Flat, B. Reagan tract, SE.¼, NW.¼, Sec. 7, T. 1 S., Blk. 31, 6 miles east of Big Spring.

	Thickness (feet)	Depth (feet)
Red clay	2	2
Red sandy clay	13	15
Red water sand and gravel	3	18

Struck water at 15 feet.
Water level, 15.0 feet below top of ground, 1 hour after hole completed.
Water sample collected. Sept. 9, 1936.

Well 129

Valley, Wilson and Co. Est., SE.¼, SW.¼, Sec. 27, T. 1 S., Blk, 33, 5⅝ miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Surface sand	4	4
Caliche	4½	8½
Gravel, sand, and broken limestone	2	10½
Chalky clay	3½	14
Coarse gravel	4	18
Medium gravel	3	21
Sandy clay	3	24
Coarse gravel	4½	28½
Sandy clay	4	32½
Hard chalky clay	2	34½
Broken limestone and clay	4½	38½
Fine sand, and coarse gravel	2	40½
Hard loose boulders, sand, and gravel	2½	43

Water level, 39.0 feet below top of ground, 2 hours after hole completed.
No water sample collected. Mar. 3,1936.

Well 130

Flat, L. M. Benkson tract, SE.¼, NE.¼, Sec. 44, T. 1 N., Blk. 32, 1½ miles northeast of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil	3	3
Sand and gravel	2	5
Pinkish sand and gravel	2	7
Pink sand and small gravel	4	11
White sand	2	13

Struck water at 10.6 feet.
Water level, 7.6 feet below top of ground, 1 hour after hole completed.
Water sample collected. July 6, 1936.

Altitude above sea level of surface at W. P. A. test wells.
(Taken with barometer)

Well Number	Altitude	Well number	Altitude
101	Not taken	116	Not taken
102	do.	117	do.
103	2,588	118	do.
104	2,540	119	do.
105	2,430	120	2,428
106	2,520	121	2,430
107	2,535	122	2,390
108	2,390	123	Not taken
109	2,392	124	do.
110	2,390	125	do.
111	2,392	126	do.
112	2,393	127	do.
113	2,392	128	do.
114	2,391	129	2,365
115	2,391	130	Not taken

Partial analyses of water from wells in Howard County, Texas.

(Analyzed at the State University under the direction of Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry, by J. E. Stullken, C. R. Stewart, D. F. Riddell, and Alfred J. Kelly, Chemists, and J. A. Harmaza, Martin Wieland and Jack Ramsey, Assistant Chemists. Results are in parts per million. Well numbers correspond to numbers in table of well records.)

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
1	City of Big Spring	239	Jan.17,1936	316	71	20	12	154	15	42	307
2	do.	176	do.	343	68	21	35	144	31	44	258
3	do.	243	do.	346	84	19	23	147	38	34	287
4	do.	214	do.	329	127	16	55	181	31	119	382
6	do.	131	Feb. 5,1936	155	189	4	4	12	a/	14	218
9	do.	121	Feb.22,1936	239	40	10	28	144	a/	17	205
12	do.	130	Jan.22,1936	248	84	3	11	269	a/	18	222
13	do.	88	Jan.28,1936	251	78	3	11	99	50	10	208
14	do.	146	Jan.22,1936	-	85	13	-	129	a/	18	268
15	do.	126	Jan.24,1936	297	75	-	39	256	41	14	187
16	do.	153	Jan.28,1936	971	818	-	12	126	a/	15	205
17	do.	139	Jan.23,1936	-	-	199	4	-	2	130	205
18	do.	153	Jan.22,1936	264	77	24	6	136	a/	20	292
18a	do.	147	do.	282	-	-	20	272	11	26	224
19a	do.	172	do.	250	67	15	10	132	12	15	230
21a	do.	137	Jan.28,1936	230	70	14	2	135	a/	9	233
23	do.	181	Feb.10,1936	274	86	6	14	305	a/	16	241
24a	do.	260	do.	239	71	2	55	256	60	23	185
27	do.	176	Jan. 7,1936	330	42	2	77	183	90	28	115
28	do.	260	do.	272	54	6	45	256	15	24	162
29	do.	248	do.	289	84	2	28	128	a/	47	217
30	do.	248	do.	1,392	1,156	11	95	297	a/	33	335
32	do.	259	Feb. 6,1936	298	70	3	41	120	38	26	188
33	do.	265	do.	259	64	-	38	111	11	35	159
34	do.	251	Feb. 5,1936	234	74	1	13	123	a/	23	210
34a	do.	256	May 3, 1936	216	32	2	50	158	15	38	90
36	do.	260	do.	239	53	3	37	201	15	31	145
38	do.	254	Feb. 3,1936	292	95	1	19	150	a/	27	295
40a	do.	260	do.	272	45	8	51	232	19	33	146
41	do.	256	Feb. 5,1936	601	212	-	-	150	214	25	529

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued.
Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
46	City of Big Spring	260	Feb.2,1936	144	-	6	49	61	8	51	23
48	do.	260	do.	307	75	3	39	262	34	25	201
49	do.	260	do.	249	5	4	90	195	26	27	31
50	do.	218	Feb.10,1936	319	66	11	42	250	26	49	211
51	do.	174	do.	314	66	11	39	244	32	44	211
53a	do.	316	do.	343	69	6	54	244	45	47	196
54	do.	303	do.	331	55	7	67	232	34	52	166
55	do.	203	Feb.12,1936	300	72	4	41	268	13	36	195
56	do.	220	Feb. 3,1936	353	79	7	46	183	53	45	225
58	do.	300	do.	249	43	6	46	183	24	39	131
59a	do.	282	do.	298	71	6	40	256	30	33	201
60	do.	233	Feb.12,1936	173	38	11	15	159	a/	30	141
61	do.	227	Feb.13,1936	177	34	4	32	153	a/	31	100
62	do.	183	Feb.19,1936	410	72	8	101	262	159	39	216
63	do.	267	-	301	67	6	26	238	41	42	241
64	do.	250	Feb.11,1936	231	70	6	13	250	a/	17	201
65	do.	252	Feb.12,1936	284	66	11	28	256	28	23	211
68	do.	102	Feb.17,1936	302	8	6	110	262	a/	46	46
69	do.	129	do.	354	64	16	48	256	48	50	226
70	do.	84	do.	373	82	11	52	366	a/	45	251
71	do.	74	Feb.12,1936	258	86	8	4	287	a/	17	251
81	T. & P. R.R. Co.	169	Jan.20,1936	182	88	5	22	5	33	29	243
86	do.	193	Jan.21,1936	366	50	24	55	135	48	54	230
108	W.P.A. test well	18	Apr. 9,1936	1,764	49	77	505	755	401	355	439
124	do.	14	July 8,1936	1,282	231	82	78	348	576	144	916
127	do.	22	Aug. 3,1936	505	120	4	166	415	a/	8	315
128	do.	18	Sept.11,1936	23,995	-	-	-	415	2,792	12,600	-
130	do.	13	July 7,1936	588	-	-	-	488	84	44	-
501	Mrs.G. Connelly,et al.	80	Feb. 2,1936	1,146	124	58	208	110	211	490	547
502	Wilson & Co. heirs	51	Mar. 3,1936	1,657	137	59	357	244	507	465	584
503	Elbow School	50	do.	2,359	293	113	411	247	340	1,080	1,188
504	Mrs. G. Connally, et al.	37	do.	2,395	-	-	-	256	458	980	-
506	J.C. McKinnon heirs		do.	604	-	-	-	232	108	166	-
507	Mrs. G. Connally, et al.	37	do.	628	64	25	131	110	108	245	263

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
508	I.B. Cauble	34	Mar. 3,1936	735	-	-	-	330	134	174	-
510	Wilcox and Co.	71	Mar. 4,1936	449	-	-	-	207	68	116	-
511	J.C. McKinnon heirs	53	do.	2,813	292	120	541	317	672	1,030	1,245
512	I.B. Cauble	75	do.	2,686	-	-	-	269	614	1,020	-
513	do.	51	do.	1,948	-	-	-	244	206	930	-
514	J.M. Coleman	51	do.	2,417	-	-	-	269	303	1,130	-
515	J.F. Ramsey	34	do.	6,686	-	-	-	855	1,705	2,280	-
516	R.C. Reed	42	do.	643	80	37	115	366	54	174	350
517	L.S. McDowell & son	59	do.	487	-	-	-	330	54	88	-
518	L.A. Ford	45	do.	1,815	163	64	394	317	526	510	668
519	J.C. McKinnon heirs	86	Mar. 5,1936	328	-	-	-	207	58	48	-
520	do.	35	do.	412	-	-	-	293	45	68	-
521	Mrs. F.L. Bell	68	do.	399	72	13	65	293	31	72	232
522	J.C. McKinnon heirs	39	do.	1,353	220	39	208	232	300	470	710
523	J.D. McKinnon	39	do.	300	-	-	-	232	19	52	-
524	J.B. Pickle	42	do.	2,193	139	76	545	438	614	600	659
525	T.W. Ashley	86	do.	399	-	-	-	354	a/	68	-
526	I.B. Cauble	107	do.	382	40	21	80	293	31	64	188
527	do.	80	Mar. 6,1936	336	-	-	-	280	17	52	-
528	Mabel Quinn	79	do.	574	54	28	129	317	61	144	248
529	Chas. Eberley	59	do.	1,198	89	66	247	330	353	278	493
530	do.	55	do.	1,607	-	-	-	359	457	425	-
531	W.F. Fahrenkamp	53	do.	1,422	77	71	338	305	384	400	478
532	do.	58	do.	3,672	-	-	-	158	1,121	1,250	-
533	C.E. Talbot	57	Mar. 9,1936	2,121	-	-	-	262	876	425	-
534	Cleveland Newman	42	do.	4,043	-	-	-	512	1,609	860	-
535	W.G. Bailey	60	do.	1,248	114	78	206	281	484	226	605
536	T.W. Haynie	41	do.	2,301	-	-	-	262	899	520	-
537	Milred Jones	42	do.	1,719	118	110	321	244	703	345	759
538	C. Newman	47	do.	3,103	160	197	644	372	1,056	860	121
539	Lomax School Dist.	16-58	do.	1,492	113	97	268	280	534	340	682
540	Mrs. J.A. McDaniel	56	do.	1,352	72	88	271	189	507	320	545
541	C. Kornegay Gin	59	do.	1,558	126	107	260	268	561	370	759
542	Sam Turner	60	do.	2,524	-	-	-	280	759	780	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued
Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
543	T.J. McIlvain	59	Mar.10,1936	1,841	-	-	-	268	640	460	-
544	do.	59	do.	1,797	138	120	311	244	631	475	840
545	J.H. Homan	53	do.	1,531	-	-	-	231	545	364	-
546	do.	63	do.	1,833	-	-	-	213	3,617	480	-
547	Mabel Quinn	64	do.	1,326	-	-	-	225	353	410	-
548	do.	16	do.	2,717	160	209	510	623	787	740	126
549	do.	38	do.	11,050	67	635	2,930	543	3,517	3,530	2,830
550	do.	34	do.	1,087	-	-	-	481	185	275	-
551	do.	14	do.	2,573	-	-	-	439	895	605	-
552	A.J. Stallings	64	Mar.11,1936	497	37	62	73	525	38	25	348
553	do.	62	do.	1,677	-	-	-	207	457	550	-
554	L.E. Lomax Estate	60	do.	1,688	-	-	-	250	445	545	-
555	do.	71	do.	1,703	114	110	326	305	576	425	739
556	M.H. Connell	63	do.	1,349	-	-	-	220	415	370	-
558	Butler Barnette	67	do.	1,732	-	-	-	220	388	640	-
559	J.C. Turner	60	do.	2,923	-	-	-	170	861	1,000	-
560	H.O. Phillips	57	do.	1,899	126	134	340	244	689	490	867
561	Sam Turner	57	do.	1,890	-	-	-	256	689	450	-
562	L.E. Lomax Estate	58	do.	2,392	-	-	-	225	719	760	-
563	do.	58	do.	1,618	113	106	302	244	547	430	718
564	C.W. Newman	62	do.	1,944	-	-	-	274	711	455	-
565	Mrs.G.Connelly, et al.	29	Mar.12,1936	1,586	-	-	-	341	232	625	-
566	Mrs. A.T. Bronaugh	31	do.	1,733	133	89	373	366	378	580	701
567	Mrs. W.J. Bronaugh	43	do.	3,100	-	-	-	317	614	1,260	-
568	Roy Wilcox	40	do.	3,110	-	-	-	512	696	1,090	-
569	J.B. Harding	67	do.	1,135	61	66	272	390	189	355	423
570	do.	36	do.	2,670	254	104	573	183	449	1,200	1,063
571	J.W. Thorp	70	do.	7,553	-	-	-	323	1,900	2,940	-
572	do.	98	do.	1,646	-	-	-	219	262	700	-
573	J.O. Rosser	99	do.	6,740	934	175	1,480	171	1,647	2,420	2,052
574	J.C. McKinnon	42	do.	2,467	-	-	-	262	674	830	-
575	J.T. Frazier	165	do.	1,827	14	38	615	476	461	465	190
576	A.W. Yates	66	Mar.16,1936	588	-	-	-	292	71	152	-
577	C.B. Whatley	118	do.	469	-	-	-	268	30	132	-
578	R.I. Finley	124	do.	475	36	20	123	268	30	134	173

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
579	H.E. Dunagan	135	Mar.16,1936	2,096	-	-	-	207	477	800	-
580	A.D. Franklin	135	do.	2,168	-	-	-	244	518	790	-
581	T.H. Gashins	131	do.	9,659	380	206	2,750	207	2,669	3,420	1,796
582	H. Cowden	154	do.	850	-	-	-	305	131	265	-
583	E.E. Brindley	125	do.	790	-	-	-	317	169	186	-
584	J.C. McKinnon heirs	41	do.	555	86	15	100	244	96	138	277
585	A.M. Fisher	73	do.	199	-	-	-	170	a/	38	-
586	J.M. Fisher et al	58	do.	218	-	-	-	207	15	17	-
587	A.M. Fisher	73	do.	276	34	14	54	177	23	64	142
588	do.	69	do.	1,047	-	-	-	213	246	335	-
589	do.	76	do.	896	36	35	250	293	184	245	234
590	E.C. Hill Estate	43	do.	2,020	-	-	-	61	668	655	-
591	Mrs. Eva Smith	54	Mar.17,1936	904	78	45	285	220	31	355	380
592	R.J. Stripling	82	do.	688	-	-	-	268	138	174	-
593	J.W. Thorp	46	do.	338	95	9	16	201	54	64	276
594	Leo Nall	208	do.	357	-	-	-	268	15	74	-
596	Mrs. G. Connally et al	170	do.	586	-	-	-	244	100	156	-
597	J.B. Pickle	146	do.	633	68	20	137	244	142	144	252
598	L.B. Wright	102	do.	628	-	-	-	598	38	54	-
599	B. & J.M. Fisher	65	do.	241	46	5	44	232	4	26	136
600	J.P. Callahan	113	do.	573	-	-	-	195	104	170	-
603	W.R. Creighton	96	Mar.18,1936	6,320	556	256	1,310	256	1,672	2,400	2,481
604	J.T. Frazier	116	do.	2,484	-	-	-	86	799	820	-
605	do.	120	do.	2,078	-	-	-	232	538	720	-
607	Mrs. Anna Coleman	125	do.	699	33	26	199	329	115	164	188
608	J.M. Anderson	118	do.	253	-	-	-	238	19	20	-
609	Joe Flock	125	do.	439	16	15	138	342	58	44	102
610	J.B. Pickle	71	do.	615	-	-	-	366	61	146	-
611	W.R. Creighton	104	do.	3,486	-	-	-	262	938	1,240	-
613	S.A. Petty	82	Mar.19,1936	809	44	25	219	207	189	230	213
614	M.M. Edwards	100	do.	416	-	-	-	220	65	92	-
615	D.B. Cox	89	do.	498	-	-	-	256	75	116	-
616	A.M. Fisher	237	Mar.23,1936	256	59	3	37	207	19	36	160

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
617	T.S. Currie	97	Mar.23,1936	340	-	-	-	232	26	72	-
618	G.W. Overton	159	do.	289	31	8	71	159	19	82	112
619	Am. Maracaibo Oil Co.	170	Mar.26,1936	286	60	5	46	232	15	46	171
620	W.R. Settles	160	do.	297	52	13	47	256	23	36	182
621	do.	160	Mar.23,1936	369	64	5	73	268	43	52	181
621a	do.	160	do.	346	72	10	48	244	28	68	222
622	do.	221	do.	259	80	8	11	256	a/	32	231
623	Forsans Water Works	285	Mar.24,1936	320	56	11	52	238	34	50	187
624	Clayton Stewart	282	do.	236	-	-	-	144	28	39	-
625	Mrs. Dora Roberts	196	do.	277	48	10	49	262	10	29	161
626	do.	207	do.	870	156	17	145	159	54	420	462
627	do.	37	Mar.25,1936	355	64	10	60	281	41	42	202
628	do.	23	do.	280	-	-	-	250	11	38	-
629	do.	22	do.	250	-	-	-	158	45	36	-
630	do.	18	do.	294	40	25	40	262	23	37	203
631	do.	12	do.	233	-	-	-	164	23	42	-
632	do.	41	do.	379	96	10	37	324	31	46	281
633	do.	59	do.	286	-	-	-	244	19	38	-
634	do.	102	do.	290	-	-	-	268	23	24	-
635	do.	214	do.	296	75	3	39	281	11	30	200
636	J. & B. Fisher	108	July 17,1936	214	-	-	-	219	4	18	-
637	J.W. Baker	200	-	290	64	7	42	256	15	36	186
638	H.R. Clay	100	Apr. 6,1936	272	80	8	18	293	a/	20	231
639	R.C. Sanderson	97	do.	250	-	-	-	213	11	38	-
640	do.	21	do.	344	72	10	49	293	23	46	222
641	E.W. Douthit	32	do.	303	67	5	47	280	10	34	186
642	do.	45	do.	308	77	6	37	293	4	38	216
643	Mrs. Dora Roberts	18	Apr. 7,1936	309	88	10	19	311	10	27	261
643a	E.W. Douthit	42	Apr. 6,1936	251	69	3	27	256	a/	24	186
644	Chalk School	44	Apr. 7,1936	392	76	13	57	281	44	64	242
645	Otis Chalk	48	do.	223	-	-	-	116	42	44	-
646	do.	30	do.	328	72	13	36	262	30	46	232
647	do.	80	do.	239	38	6	50	220	11	26	140
648	do.	100	do.	253	67	3	29	244	8	26	181

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Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
650	Harry Hyman	18	Apr.16,1936	1,159	-	-	-	315	230	370	-
651	M.H. O'Daniel	7	do.	852	-	-	-	378	186	178	-
653	Mary Foster	72	Apr.15,1936	592	12	16	201	415	79	80	97
654	E.C. Saunders	54	Apr.17,1936	1,225	189	72	151	268	226	455	769
655	H.T. Hale	35	Apr.20,1936	1,414	189	87	199	268	257	550	831
656	Magnolia Petr. Co.	20	do.	869	96	37	185	378	98	270	390
657	do.	14	do.	432	62	18	82	305	42	78	227
658	J.P. Davis	18	Apr.21,1936	1,940	-	-	-	720	396	505	-
659	C.A. Cranfill	17	do.	1,089	35	46	306	549	326	106	276
660	Le Roy Echols	37	do.	2,142	-	-	-	292	1,045	270	-
661	Elbert Echols	44	do.	730	-	-	-	292	165	164	-
662	G.W. McGregor	72	do.	2,189	-	-	-	231	396	920	-
663	Mrs. J.B. Moore	23	do.	1,166	92	40	282	452	300	230	395
664	Louie Hutto	63	do.	2,652	381	107	404	195	634	1,030	1,393
665	Mrs. W.S. Miller	27	do.	1,103	-	-	-	280	369	224	-
666	Chas. Robinson	41	do.	3,837	-	-	-	140	983	1,490	-
667	Ray Wilcox	46	do.	4,491	-	-	-	110	1,275	1,660	-
668	Walter Robinson	75	do.	3,002	-	-	-	152	607	1,290	-
669	Mrs.O.L.Williams et al.	14	Apr.22,1936	958	78	63	177	366	300	160	453
670	G.W. McGregor	34	do.	1,424	-	-	-	534	522	220	-
672	Bob Powell	30	do.	1,161	-	-	-	274	407	230	-
673	C.D. Read	16	Apr.24,1936	1,210	6	89	345	782	171	215	371
674	R.A. McQuerry	16	do.	1,179	31	103	248	585	419	90	503
675	B.F. McKinney	27	do.	1,462	43	112	325	220	369	505	569
676	H.D. Barron	24	do.	1,312	-	-	-	402	296	360	-
677	H.T. Hale	16	do.	1,378	26	77	395	727	253	270	380
678	A.D. Shive	19	do.	814	-	-	-	462	209	88	-
679	J.C. Hale Estate	49	do.	2,182	7	100	665	830	607	395	428
680	L.E. Coleman	72	do.	3,734	111	256	864	250	960	1,420	1,332
680a	do.	100	Sept.18,1936	1,458	197	97	187	329	318	495	892
681	N.G. Hoover	47	Apr.27,1936	1,414	188	39	272	330	303	450	630
682	Chas. Robinson	55	do.	4,252	-	-	-	189	1,237	1,500	-
683	Walter Robinson Est.	94	do.	2,474	-	-	-	207	213	1,280	-
684	M.G. Riggan	96	do.	2,029	-	-	-	116	273	990	-

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
685	Lillie O. Sides	30	Apr.27,1936	435	22	22	117	269	58	84	143
686	C.L. Barnes	126	do.	360	-	-	-	262	27	68	-
687	Ray Wilcox	144	do.	459	-	-	-	268	65	94	-
688	do.	175	do.	473	74	18	84	311	48	96	257
689	Clay Read	42	do.	280	-	-	-	207	27	46	-
689a	M.H. Cardwell	Springs	Mar.24,1936	583	44	39	116	384	169	23	270
690	J.G. Arnett	61	Apr.27,1936	2,332	214	72	505	244	641	780	870
691	Cliff Tolbert	106	do.	1,812	322	93	202	207	223	870	1,187
692	Cosden Refining Co.	130	do.	355	66	17	51	293	15	62	232
693	do.	130	do.	252	50	11	35	256	11	19	172
694	do.	135	do.	2,040	290	93	310	195	611	700	1,107
695	W.P. Young	51	Apr.28,1936	452	-	-	-	366	61	42	-
696	W.M. Spears	59	do.	1,060	-	-	-	280	288	270	-
697	W.W. Lay	49	do.	1,668	-	-	-	231	442	700	-
698	R.V. Guthrie	38	do.	329	-	-	-	244	46	41	-
699	W.W. Lay	59	do.	453	8	43	102	220	96	96	195
700	J.R. Wheeler	60	do.	3,109	-	-	-	134	472	1,490	-
701	S.B. Buchanan	75	do.	354	-	-	-	329	15	40	-
702	Mrs. Kate Wolf	25	do.	373	78	14	48	220	8	117	252
703	Leon Moffett	50	do.	530	-	-	-	286	54	140	-
704	Frank Loveless	8	do.	1,318	22	75	374	757	307	168	364
705	W.H. Robinson	72	do.	2,980	-	-	-	195	710	1,160	-
706	Rose Feeler	56	do.	2,291	-	-	-	470	518	750	-
707	R.V. Guthrie	84	do.	2,254	-	-	-	201	515	870	-
708	Jas. E. Robinson	48	do.	398	98	14	37	293	15	90	302
709	Cosden Refining Co.	99	May 1, 1936	347	52	17	62	317	35	25	197
710	Sam Buchanan	102	do.	939	106	51	152	317	330	144	476
711	W.C. Westfall	87	do.	2,699	-	-	-	232	455	1,190	-
712	S.D. Buchanan	53	do.	4,195	-	-	-	244	1,198	1,470	-
713	M.W. Walker	63	do.	1,661	184	105	277	232	211	770	893
714	do.	71	do.	348	-	-	-	378	11	14	-
715	S.D. Buchanan	69	do.	2,347	-	-	-	220	515	920	-
716	M.W. Walker	78	do.	2,156	233	99	423	159	223	1,100	987
717	J.W. Walker Estate	97	do.	1,019	112	72	158	220	169	400	574
718	E.C. Saunders Est.	65	do.	1,295	194	71	175	297	238	470	774

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
719	Lee Nuckles	130	May 7, 1936	3,550	376	117	720	250	914	1,300	1,424
719a	W.R. Settles	160	Oct.18,1936	388	90	18	37	311	a/	90	301
720	I.W. McNew	79	May 18,1936	494	-	-	-	537	15	21	-
721	J.A. Walker	95	do.	2,691	-	-	-	201	415	1,240	-
722	G.W. Davis	76	do.	1,631	154	100	289	403	415	475	803
723	J.A. Bishop	69	do.	312	60	20	38	348	11	12	232
724	E.C. Crittenden	71	do.	471	-	-	-	470	42	17	-
725	R-Bar School	45	do.	352	7	41	75	317	42	31	185
726	B.F. Miller	41	do.	410	-	-	-	415	35	13	-
727	Jas. E. Robinson	40	do.	305	-	-	-	342	a/	16	-
728	do.	34	do.	1,352	114	109	210	452	442	255	734
729	R.E. Martin	52	do.	329	-	-	-	311	31	19	-
730	Jas. E. Robinson	60	do.	340	58	24	41	269	23	62	243
731	Mrs. M.L. Musgrove	167	May 18,1936	796	-	-	-	372	177	154	-
732	Earl Hull	57	do.	1,496	171	95	225	232	381	510	816
733	S.L. Hull	87	do.	852	127	52	108	269	173	260	532
734	B.T. Birkhead	63	do.	2,869	-	-	-	177	576	1,220	-
735	C.D. Read	94	do.	523	-	-	-	268	77	124	-
736	J.M. Wilson	46	May 19,1936	274	-	-	-	293	4	18	-
737	D.W. Logan	79	do.	2,147	353	136	221	232	353	970	1,442
738	W.W. Lay	34	do.	776	86	34	156	397	165	140	354
739	R.V. Guthrie	95	do.	816	-	-	-	512	127	138	-
740	do.	76	do.	1,400	134	73	270	378	342	395	634
741	do.	42	do.	1,351	87	76	302	470	330	325	530
742	P.N. Shive	61	do.	2,444	-	-	-	329	722	740	-
743	Mrs. W.P. Young	45	do.	4,158	-	-	-	177	1,133	1,540	-
744	Can Powell	80	do.	487	58	23	97	281	61	110	238
745	S.D. Buchanan	64	do.	2,479	-	-	-	355	649	780	-
746	J.M. Pyle Estate	43	do.	678	86	26	125	281	169	134	323
747	C.C. Harrington	51	do.	581	-	-	-	336	134	74	-
748	W.F. Heckler	44	do.	1,103	141	55	181	305	246	330	577
749	Alvin Walker	33	do.	571	-	-	-	372	84	94	-
750	A.W. Rowe	176	do.	3,881	51	31	1,190	427	1,029	1,370	255
751	J.B. Wheat	195	do.	3,516	-	-	-	567	841	1,190	-

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Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
752	C.E. Kincannon	217	May 21,1936	3,740	48	25	1,300	452	905	1,240	223
753	Ben Brown	175	do.	3,568	-	-	-	500	883	1,220	-
754	Am. Natl. Ins. Co.	219	June 1, 1936	4,598	-	-	-	537	1,467	1,330	-
755	N. E McMinn	224	do.	3,826	37	19	1,355	494	952	1,220	172
756	J.T. Joiner	86	do.	2,770	-	-	-	519	684	880	-
757	G.H. Brown	90	do.	3,459	-	-	-	488	791	1,240	-
758	J.L. Jones Estate	204	do.	3,144	-	-	-	512	764	1,050	-
759	L.W. Jones	261	do.	3,202	17	17	1,176	690	603	1,050	112
760	M.N. Brown	226	do.	3,478	-	-	-	549	791	1,220	-
761	J.L. Jones Estate	166	do.	2,980	-	-	-	653	622	1,000	-
762	C.H. Rutledge	225	do.	3,179	22	24	1,140	659	699	970	153
763	E. Guffee	217	do.	4,166	-	-	-	555	975	1,490	-
764	do.	170	do.	5,704	-	-	-	519	1,475	2,040	-
765	J.L. Jones Estate	186	June 2,1936	3,806	-	36	1,385	696	783	1,260	150
766	Mrs. M.N. Brown	123	do.	3,067	-	-	-	695	637	1,020	-
767	J.D. Williams	89	do.	849	38	66	187	482	205	116	366
768	Texas Land and Mortgage Co.	50	do.	448	-	-	-	299	104	36	-
769	do.	66	do.	1,331	196	78	126	305	753	38	813
770	R.T. Shaffer	63	do.	524	-	-	-	329	113	60	-
771	do.	51	do.	533	-	-	-	360	100	62	-
773	Wayne Ingram	23	do.	373	-	-	-	378	27	16	-
774	W.A. Reed	65	do.	449	61	21	76	293	117	30	238
775	Lee Warren	243	do.	3,177	17	21	1,130	380	787	1,030	128
776	J.L. Jones Estate	271	do.	3,197	54	-	1,150	549	653	1,070	134
777	F.P. Dearen	129	June 3,1936	4,251	128	116	1,130	311	2,269	455	797
778	J.H. Appleton	22	do.	1,153	-	-	-	183	687	19	-
779	G.W. Barber Jr.	233	do.	2,134	75	32	624	153	868	460	320
780	J.P. Anderson	81	do.	606	-	-	-	226	180	106	-
781	M.C. Buchanan	99	do.	432	-	-	-	275	73	66	-
783	Jim Moates	101	do.	329	41	14	68	256	34	46	163
784	Mrs. Minnie Smith	115	do.	348	24	18	90	299	31	38	136
785	G.Y. Wilson Estate	20	do.	267	-	-	-	293	8	10	-
786	do.	224	do.	2,660	-	-	-	153	852	850	-
788	Mrs. Minnie Smith	99	June 4,1936	418	48	23	87	378	34	40	214

Partial analyses of water from wells in Howard County--Continued
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Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
789	Mrs. Minnie Smith	209	June 4,1936	449	65	12	87	220	73	104	213
790	do.	46	do.	349	-	-	-	403	a/	12	-
791	J.P. Anderson	64	do.	341	-	-	-	336	27	18	-
792	E.R. Gideon	124	do.	627	25	14	198	281	100	152	118
793	C.B. Lawrence	135	do.	500	-	-	-	336	104	50	-
794	W.M. Read	140	June 5,1936	463	60	16	91	244	92	84	217
795	G.J. Couch	146	do.	369	-	-	-	244	53	60	-
796	J.F. Heckler	150	do.	344	46	4	84	244	38	52	131
797	Lewis Underwood	140	do.	493	-	-	-	183	165	70	-
798	L.F. Lawrence	144	do.	326	-	-	-	250	38	43	-
799	G.W. Keel	141	do.	350	-	-	-	231	53	54	-
800	J.A. Wasson	148	do.	413	-	-	-	238	81	66	-
801	Arch C. Ginsley	158	do.	366	40	10	89	250	46	58	142
802	Bill Poe	143	do.	430	-	-	-	220	88	80	-
803	Gay Hill School	159	do.	402	46	14	85	213	88	64	172
804	Mrs. Laura A. Simpson	160	do.	351	-	-	-	232	54	54	-
805	do.	149	do.	394	-	-	-	238	96	42	-
806	M.C. Hayden	160	do.	310	38	10	71	256	27	38	137
807	Edward Simpson	171	do.	287	22	17	69	256	23	30	127
808	Tom Spencer	152	June 9,1936	360	-	-	-	268	46	48	-
809	E. Clanton	68	do.	465	-	-	-	244	61	114	-
810	S.L. Lockhart	68	do.	493	102	14	78	268	65	102	312
811	H.H. Harland	50	do.	906	81	28	215	342	204	210	319
812	Akin Simpson	159	do.	294	14	15	79	195	50	40	97
813	J.W. Nix	160	do.	335	-	-	-	281	19	50	-
814	A.W. Nix Estate	160	do.	369	28	15	98	293	38	46	132
815	W.L. Scott	170	do.	352	34	12	89	293	35	38	137
816	R.C. Oliver	159	do.	355	-	-	-	281	42	42	-
817	W.S. Proctor	144	do.	407	-	-	-	293	54	58	-
818	Williams and Miller Gin Company	152	do.	389	19	23	101	293	58	44	143
819	Sid Oliver	160	do.	428	-	-	-	445	22	20	-
820	W.R. Puckett	105	do.	387	-	-	-	232	65	48	-
821	O.J. Brown	127	June 10,1936	396	-	-	-	329	38	46	-

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Partial analyses of water from wells in Howard County--Continued
Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
822	J.B. Ryan	141	June 10,1936	567	55	31	121	384	77	94	264
823	W.B. Puckett	115	do.	271	-	-	-	177	58	28	-
824	Atlas Life Ins. Co.	120	do.	315	22	16	79	219	42	48	121
825	Mrs. Florence Jones	119	do.	453	-	-	-	256	77	86	-
826	H.S. Miller	129	do.	348	-	-	-	244	38	60	-
827	W.C. Brooks	117	do.	401	-	-	-	366	38	30	-
828	Mrs. W.B. Sneed	113	do.	339	23	21	86	330	19	28	143
829	Elmer Terry	114	do.	521	53	32	104	372	65	84	264
830	Geo. McGreagor	46	do.	1,454	91	81	327	293	307	504	560
831	Guy Wallace	84	do.	846	-	-	-	207	204	248	-
832	T.F. Nabors	66	Sept. 1,1936	1,936	155	27	466	317	511	510	499
833	A.C. Brigance	161	do.	1,124	68	4	323	256	181	348	185
835	Mrs. W.T. Reed	158	do.	287	23	22	58	244	23	36	149
836	Ed Muriel	103	do.	398	35	14	102	262	46	72	143
837	Mrs. M.J. Bogard	152	do.	476	-	-	-	244	84	100	-
838	W.M. Reidy	149	do.	379	26	11	108	281	50	46	112
839	Lone Star Land Co.	159	do.	1,049	230	76	35	171	154	470	887
840	H.A. Pace	175	do.	285	-	-	-	244	15	40	-
841	P.H. McKee	102	Sept. 1,1936	393	15	14	125	329	35	42	93
842	J.F. Winnan	99	do.	377	-	-	-	360	27	28	-
843	C.E. West	141	do.	489	-	-	-	372	61	62	-
844	G.T. Palmer	134	do.	444	36	27	100	348	54	56	202
845	Ray Smith	56	Sept. 2,1936	403	103	49		354	15	62	460
846	Earl Phillips	48	do.	2,291	191	97	500	401	695	610	875
848	C.O. Robertson	137	do.	374	-	-	-	293	50	40	-
849	Rosetta Blackman	119	do.	437	-	-	-	342	58	48	-
850	R.H. Quinn	120	do.	579	29	38	141	372	92	96	229
851	I.W. Rogers	110	do.	521	-	-	-	360	77	75	-
852	Mary Graham	120	do.	29	-	-	-	354	54	40	-
853	Soash School	109	do.	444	35	14	121	317	54	64	143
854	Bill Bass	102	do.	415	-	-	-	342	42	48	-
855	T.J. Conner	92	do.	376	-	-	-	305	38	46	-
856	Ed Lauderdale	128	do.	436	-	-	-	348	54	48	-
857	Mrs. Mary E. Hubner	168	do.	539	12	30	158	378	81	72	153
858	Henry Riley	133	do.	514	-	-	-	342	96	66	-

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
859	R.N. Adams	129	Sept.2,1936	672	10	20	32	427	284	116	107
860	Delia S. Wright	118	do.	394	-	-	-	330	42	41	-
861	do.	68	Sept.3,1936	485	-	-	-	488	38	20	-
862	Albert Fisher	91	do.	435	43	40	75	366	15	82	269
863	R.A.B. Shortes	93	do.	343	-	-	-	281	a/	72	-
864	H.L. Batton	55	do.	1,030	31	48	286	536	307	94	269
865	P.E. Foster	70	do.	2,989	345	1	775	232	a/	1,680	869
866	W.G. Page	63	do.	331	-	-	-	366	a/	20	-
867	Willis Page	57	do.	628	-	-	-	415	a/	184	-
868	West-Knott School	66	do.	766	42	87	99	892	a/	100	464
869	City of East-Knott	68	do.	959	41	99	186	695	177	114	511
870	J.M. Neil heirs	34	do.	621	-	-	-	647	34	28	-
871	S.C. Gist	50	do.	737	-	-	-	744	69	18	-
872	M.G. Walker	22	do.	393	-	-	-	445	11	8	-
873	M. Gonzales	71	do.	1,676	70	71	438	390	480	425	469
874	S.A. Johnson	44	do.	368	-	-	-	390	15	17	-
875	G.H. Shorter	51	do.	607	-	-	-	549	69	38	-
876	J.T. McCauley	28	do.	684	15	55	189	726	44	24	264
877	E.C. Witt	20	do.	5,959	-	-	-	903	2,150	1,390	-
878	R.B. Cline	71	Sept.4,1936	970	-	-	-	586	188	143	-
879	J.H. Hanks	24	do.	1,344	30	43	416	463	307	320	252
880	Viola McGinnis	20	do.	390	-	-	-	445	8	9	-
881	C.A. Burk	22	do.	407	-	-	-	366	37	35	-
882	W.S. Martin	11	do.	182	32	9	29	183	11	11	165
883	J. West	23	do.	197	-	-	-	171	15	23	-
884	Lester Fisher	39	do.	2,597	-	-	-	390	1,490	106	-
885	B.B. Free	47	do.	1,779	170	92	290	366	991	56	802
886	J.A. Peugh	50	do.	1,760	3	35	573	708	653	96	154
887	Lee Cole	57	do.	4,450	-	-	-	433	2,043	768	-
888	J.G. Nickles	69	do.	491	73	57	45	488	42	34	395
889	T.A. Gaskins	60	do.	5,550	-	316	1,470	463	2,362	1,174	1,298
890	Roman Bros.	47	do.	282	-	-	-	110	98	34	-
891	Cliff Talbot	22	do.	932	48	92	183	714	148	110	497
892	P.C. Leatherwood	63	Sept,9,1936	1,602	-	-	-	397	376	476	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
893	R.L. Schwerzenbach	74	Sept.9,1936	864	-	-	-	317	104	292	-
893a	do.	90	Apr. 1,1936	1,973	302	146	192	275	384	814	1,353
894	J.W. Curtis	97	Sept.9,1936	3,918	632	132	526	159	814	1,625	2,124
895	Mrs. F.B. Blalock	96	do.	323	-	-	-	342	15	14	-
896	Mrs. Dora Roberts	67	do.	2,405	-	-	-	214	526	950	-
897	F.M. Holley	93	do.	338	-	-	-	384	a/	15	-
898	R.B. Cline	70	do.	470	-	-	-	494	19	24	-
899	J.W. Smith	33	do.	2,029	18	47	638	628	653	305	239
900	W.S. Martin	22	do.	5,466	-	-	-	403	3,206	380	-
901	Guitor Estate	31	do.	4,215	-	-	-	519	2,074	545	-
902	E.E. Coughey	33	do.	2,871	-	-	-	159	1,808	136	-
903	J.G. Crawford	26	do.	11,944	573	584	2,680	250	4,493	3,380	3,826
904	W.J. Copeland	32	do.	3,352	-	-	-	146	1,989	265	-
905	H.H. Wilkerson	55	do.	856	112	52	113	250	300	156	492
906	J.M. Bates	32	do.	5,707	-	-	-	159	2,822	1,010	-
907	H.H. Wilkerson	36	do.	6,120	509	594	566	256	3,700	625	3,711
908	P.E. Rust,et al.	72	do.	6,623	558	187	1,460	128	2,861	1,600	2,164
909	Arch. Ford	44	Sept.10,1936	2,437	-	-	-	171	1,594	25	-
910	G.M. Long	25	do.	3,041	-	-	-	207	1,613	375	-
911	H.H. Wilkerson	14	do.	5,169	-	-	-	384	2,400	930	-
912	W.H. Abrams, Agent	22	do.	4,867	446	183	862	195	2,611	610	1,866
913	Birl Field	29	do.	4,118	-	-	-	189	2,189	550	-
914	H.H. Wilkerson	16	do.	8,988	-	-	-	342	5,242	820	-
915	Mabel Quinn	10	do.	6,543	578	191	1,300	220	3,165	1,120	2,230
916	J.T. Miller	72	do.	3,199	229	93	766	311	764	1,120	966
917	E.D. Hull	67	do.	403	-	-	-	470	4	8	-
918	Jno. C. Adams	45	do.	1,209	-	-	-	689	250	186	-
919	Guitor Estate	52	do.	562	-	-	-	634	12	16	-
920	J.W. Phillips	53	do.	769	50	100	108	744	77	68	531
921	W.H. Ward	93	do.	546	-	-	-	512	61	25	-
922	J.A. Forrest	79	do.	3,208	267	158	634	220	530	1,400	1,327
923	R.T. Kelley	136	do.	1,848	83	64	505	244	411	665	469
924	B. Leatherwood	89	do.	3,366	-	-	-	183	1,321	860	-
925	B.B. Fox	240	Aug.14,1936	261	46	6	53	293	a/	12	142

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO_3)	Sulphate (SO_4)	Chloride (Cl)	Total hardness as $CaCO_3$ (calculated)
926	Joe B. Neal	126	Sept.22,1936	443	80	11	74	287	58	79	247
927	J.W. Clark	124	June 25,1936	1,058	-	-	-	281	572	11	-
929	B.B. Fox	94	Aug.25,1936	258	62	3	34	201	23	37	167
930	Hardy Morgan	124	do.	277	75	4	30	287	8	19	204
932	B. and J. Fisher	111	Aug. 27,1936	363	-	-	-	281	31	57	-
936	S.G. Childress	130	Sept.21,1936	352	78	8	46	244	42	58	225
937	Mrs. P.A. Ratliff	125	do.	287	-	-	-	232	19	45	-
938	J.B. Hollis	115	Oct. 1, 1936	338	-	-	-	384	a/	15	-
939	A.M. Burns	124	do.	349	41	24	68	153	61	80	153

a/ Sulphate less than 10 parts per million.

MAP OF HOWARD COUNTY, TEXAS.
SHOWING LOCATION OF WATER WELLS.

TEXAS BOARD OF WATER ENGINEERS ASSISTED BY U.S. GEOLOGICAL SURVEY.
FIELD WORK BY J.HOWARD SAMUELL.
W.P.A. PROJECT 2091

BASE COMPILED FROM COUNTY LAND OWNERSHIP MAP AND FROM FIELD NOTES.

SCALE 0 1 2 3 4 5 MILES

MARTIN COUNTY

BORDEN COUNTY

GLASSCOCK COUNTY

STERLING CO.

MITCHELL COUNTY

COUNTY

GYP LAKE

MORITA

ELBOW CREEK

LOMAX

W. KNOTT.

E. KNOTT.

SOASH

VEALMOOR

FAIRVIEW

LUTHER

BIG SPRING

T. & P. LAKE

T. & P. R.R.

COAHOMA

MAGNOLIA WATER LINE TO COAHOMA

MAGNOLIA TANK

HEAD TANK

WILD HORSE CREEK

VINCENT

FORSAN

CONTINENTAL WATER LINE

CHALK SCHOOL

SEE ENLARGED MAP OF BIG SPRING SECTION

PROPOSED DAM SITE

BEALS CREEK

CITY WATER SYSTEM

LEGEND

- WELL WITH HANDPUMP
- WELL WITH WINDMILL OR SMALL POWER PUMP
- WELL WITH PUMPING PLANT-5 HORSEPOWER OR LARGER
- WELL DRILLED TO TEST FOR OIL OR GAS
- UNUSED WELL
- TEST WELL DRILLED BY W.P.A. LABOR
- SPRING
- U.S. GOVERNMENT BENCH MARK

CITY OF BIG SPRING WATER SYSTEM 1936

BIG SPRING

BLOCK 32

BLK 33

CITY PARK

T. & P. R.R. LAKE

22,000 GAL. RESERVOIR EL. 2709

1,000,000 GAL. RESERVOIR EL. 2603

1,250,000 GAL. RESERVOIR EL. 2597

12" MAIN

8" MAIN

12" GRAVITY MAIN

12" PRESSURE MAIN

SHAFT WELL

TEXAS BOARD OF WATER ENGINEERS ASSISTED BY U.S. GEOLOGICAL SURVEY

FIELD WORK BY J. HOWARD SAMUELL PROJECT SUPERINTENDENT W.P.A. PROJECT 2091

SCALE ONE MILE

LEGEND

- WELL WITH HAND PUMP
- WELL WITH WINDMILL OR SMALL POWER PUMP
- WELL WITH PUMPING PLANT, 5 HORSEPOWER OR LARGER
- WELL DRILLED TO TEST FOR OIL OR GAS
- UNUSED WELL
- TEST WELL DRILLED BY W.P.A. LABOR
- SPRING

KURYO 3-19-37.